



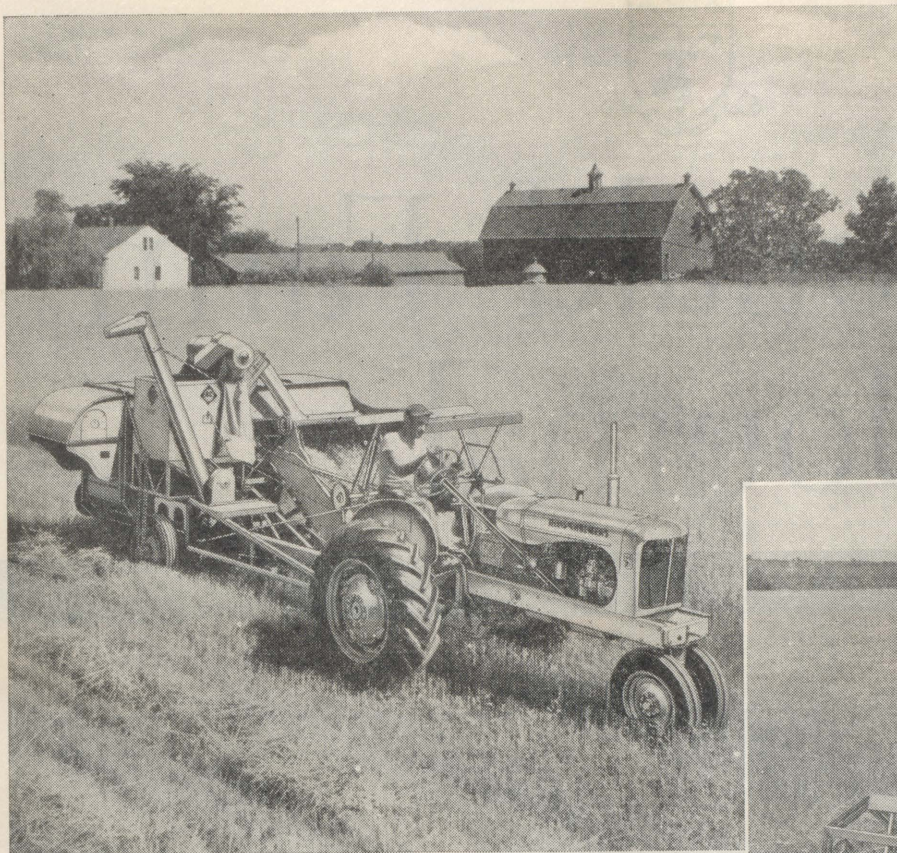
THE Macdonald Farm Journal

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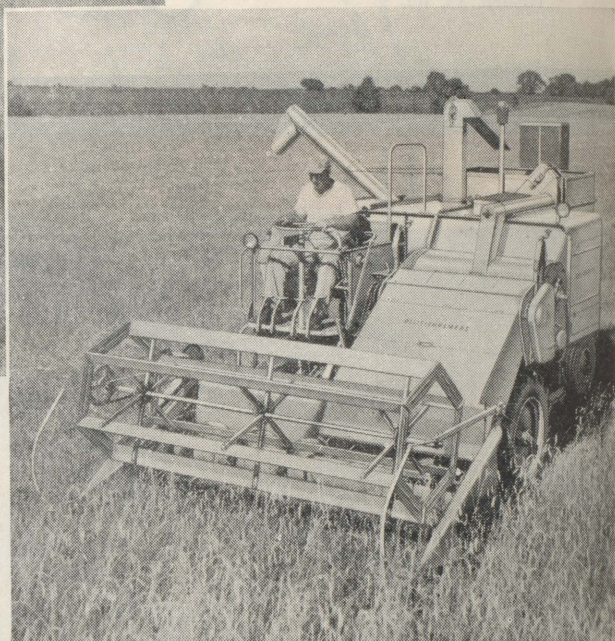
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Where Do We Go From Here?

It has been suggested that we use these editorial columns to deal more directly with farm problems such as prices, marketing or production and leave the larger international questions to be pointed up by others. Needless to say we don't entirely agree with this criticism, but we are glad it was voiced and if there are any others who feel either one way or another on this or any other question we will be glad to hear about it and print their letters.

Why don't we agree? Because we feel that the world is a pretty small place and is liable to get smaller. Unrest in Korea, uncertainty in Indo-China, jungle warfare in Malaya all affect our lives in one way or another. What can we do about it? Personally we feel that there is nothing we can do unless and until we are fully aware of the problems involved, and that is what an editorial is for—not to give answers or to hoe a party line, but to point up problems within the framework of democratic thought and ideals; to give leads but not answers; that's up to the individual or the group.

Only one out of our last six editorials has dealt with an international agricultural problem—not a bad record we think, but we are going to brave the wrath of our critics again this month by passing comment on an international problem which, at least in the framework we want to discuss it, bears only indirectly upon agriculture, but which to our mind is just as important to the welfare of agriculture as it is to any other group in the Canadian economy.

Scientific research can be and has been a valuable aid in helping man better his position in life, but it can be a potential killer too. Through this same scientific research that has brought so many blessings to this world man has also acquired the ability to commit mass suicide if he so desires and to take every living thing with him. Here indeed is a problem which requires the energy and abilities of all men everywhere.

Centuries ago man thought the invention of gunpowder would wipe out all wars, for the power of mass destruction of this new weapon was too terrible to contemplate. Later came other weapons more devastating in their impact upon mankind—but man has survived, he has learned to live with these inventions of his own genius; to use many of them to serve his own ends in peaceful pursuits. And so it has been all through history. People who like ourselves have lived during periods of great events have all felt this gnawing fear—but they have survived just as we shall although admittedly we face a far greater problem.

What to do? Many people want to stop all further research into the mysteries of atomic structure, to stop where we are now—but it's too late, we have the means now and man's incurable curiosity to discover the secrets of the universe in which he lives and of life itself cannot be held in check by any edict however strongly worded or enforced. This approach has been tried before in history and failed as it would again.

What then can we do? We can learn to live with it; we can learn to use this new source of energy to serve our needs, not destroy them. At the same time as we learn to live together, we must also believe that all people shall share equally in this new source of energy for peaceful pursuits. It may be that now is the time to act when all people everywhere have been shocked into a realization of what the alternative is.

Hating people is a luxury we cannot afford to indulge in.

Our Cover Picture

June is the month of conventions at Macdonald College, and the gates are open to welcome delegates of the Quebec Women's Institutes, the Canadian Seed Growers' Association and the Agricultural Institute of Canada.

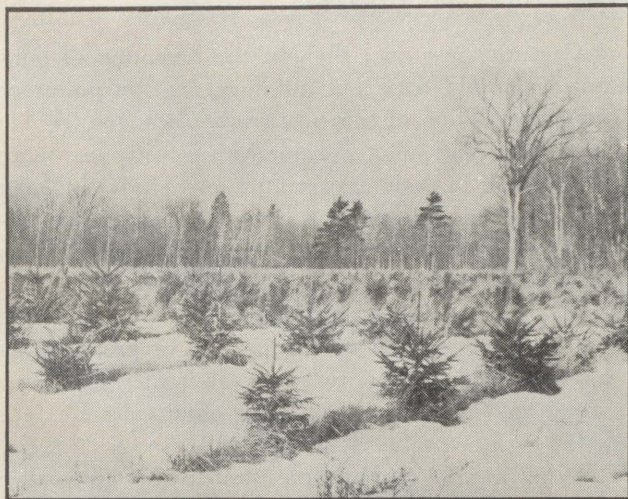
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A New Study Center In Woodlot Management

by W. H. Brittain



The tree grows—a nursery at Morgan's Woods.

Macdonald College is building up a unique organization in its new Center of Woodlot Management.

FIVE years ago Macdonald College began the work of improving the woodlot comprising the area formerly known as "Morgan's Woods" under the supervision of a skilled forester. This work has been vigorously carried out ever since, and much more besides. One hundred additional acres have been planted or are being planted with native trees useful for pulpwood and timber. Other areas are being cleared of scrub growth for the same ultimate purpose. Collections of useful native trees have been planted in groups to test their adaptability on the wide range of different types of soils available in the area.

These latter plantings constitute the portion known as the "Arboretum". It should be explained that this differs from the conventional type of arboretum, where all species from different parts of the world which will grow in an area may be found. Our efforts have been concentrated upon securing native trees and others which may have a special value in this country. The Arboretum, together with the woodlot and reforested areas, is an out-of-door laboratory where the principles and practice of woodlot management may be taught. Since the inception of this work, field days, demonstration, etc., in the woodlot have been carried out from time to time, with a view to making the program more widely known. We believe that this has had some effect in creating a greater interest in this subject among the rural people than has hitherto existed.

Last year an association known as the Morgan Arboretum and Woodland Development Association was

formed with the view of promoting an interest in better woodlot management. The support obtained through this association has already enabled the College to carry out a useful extension of its work.

It is now proposed to go a step further, provided the necessary funds can be secured, namely, to set up a study center in woodlot management, which will involve the establishment of a lecturership or chair of Woodlot Management at Macdonald College, to undertake an active campaign of education in this field.

The College has many advantages for this purpose. It is an established institution attracting students from all parts of eastern Canada and is equipped to carry on degree courses and vocational courses with its regular students once a suitable specialist can be employed.

It has contact with Farm Forum, Women's Institute and all rural groups through its Adult Education Service. It conducts short courses, demonstrations and field days for farmers and farmers' sons; it publishes a monthly Journal together with timely pamphlets and newsletters dealing with modern developments in agriculture.

In addition to the Arboretum with its specimen groups of native trees, a splendid laboratory for teaching purposes is offered by the 700 acres woodlot of which over 300 acres constitute merchantable timber.

The College has all the facilities necessary to support a Department of Woodlot Management; it has laboratories and classrooms splendidly equipped for the purpose. All this together with the woodlot, the Arboretum and the experimental plots, represents a collection of facilities that cannot be matched elsewhere. Considerable progress has already been made, even without outside



The tree matures and is felled to make way for others of its kind.



The tree is cut and piled ready to be taken into the home for a winter's warmth.

support and this was recognized last year by the conferring of the first Tree Farm Certificate to be given to any educational institution.

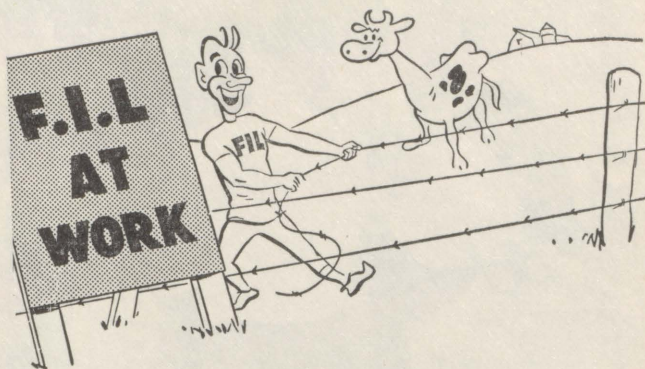
In addition to the above facilities, the Harrington Experimental Forest is close at hand and has been made available through the courtesy of the Canadian International Paper Co.

With the general recognition of the fact that we must increasingly depend upon private woodlots for our supply of pulpwood, and with the knowledge that present methods are wasteful and inefficient, it will be realized that such a step is overdue. Moreover, we are aware of the fact that in some of the States, where a similar program has been carried on, the depletion evident in many of our own woodlots has been reversed and an actual increase in production achieved.

Some excellent forestry schools exist in Canada, but a study centre devoted exclusively to the promotion of woodlot management nowhere exists. Such a centre will supplement, and in no way compete with, the excellent work already being performed through government agencies, the Canadian Forestry Association, the pulp and paper industry and other organizations.

It is realized that all this will cost money. However, a part of the necessary sum is now pledged and there is at least some hope that the remainder may be forthcoming. Should this hope be realized, a great step forward in the interests of better woodlot management will have been achieved and the time when wood is regarded as a crop and not just something to be exploited will have been brought appreciably nearer.

Railway Carloadings were almost 8 percent under the 1953 level in the week ending March 21, bringing cumulative 1954 loadings to 737,531 cars, a 10 percent reduction from last year's 818,267.



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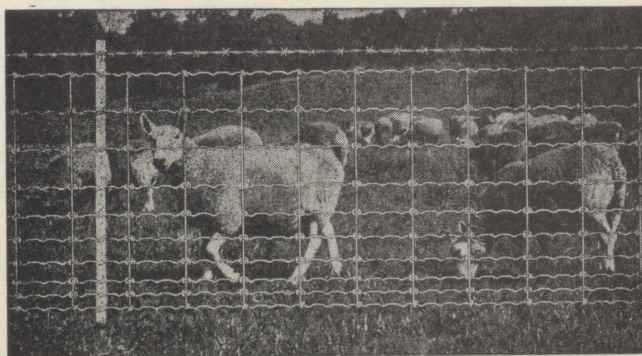
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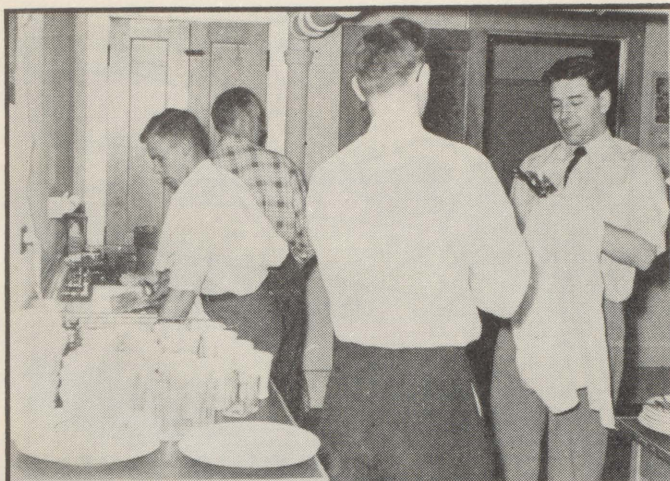
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Everyone pitched in at washing and drying the dishes, in 1, Gerald Duncan, Mr. Martin, Bill Hodgins and the Rev. Johnston take their turn. It wasn't all work though—in picture 2, Ralph Craig, Mrs. Edythe Westover, Joan Telford and Elizabeth Green are enjoying a joke between

sessions. In picture 3, J. J. Anderson, Mrs. Westover and Mrs. Ossington sit in on one of the many courses, and in 4, Gerald Duncan takes his turn at public speaking while J. J. Anderson, Gordon Lang, David Rankin and Marion Mason listen.

Highlights Of The Leadership Forum

by Floyd Griesbach

"IT WAS wonderful the way the young people mixed with the older people" was the quick reply of Mrs. J. Ossington of Granby, Que., when asked what was the highlight of the Chateauguay Valley Leadership Forum. Billy McDonald of Trout River said "he never knew learning could be so much fun."

The Ormstown High School was an active place when 19 persons representing as many organizations gathered for five days of the Easter Holiday. On two occasions public meetings were held to try out some of the ideas talked about at the Leadership Forum. Nearly 100 persons were present at the final meeting to take part in the demonstrations and hear a talk on "Milk Pooling" by Gilbert McMillan, President of the Dairy Farmers of Canada. The advantages and disadvantages of a "Milk Pool" had been listed at the first meeting through the use of small group discussions. The study of Milk Pooling closed on a note of "there are many problems but we must do something".

Ralph Craig of Ormstown was elected by the participants of the Leadership Forum to report to the community meeting. His report follows:

"Our Leadership Forum consisted of 19 members and I must say they turned out to be active members. As the content of the Forum was left entirely to the decision of the members, we, ourselves planned the five day schedule.

Our day was divided into three sessions. Six committees of three were drawn up to handle daily duties like chairing meetings, doing dishes, preparing vegetables and so forth. These committees were rotated so each undertook new work after each meal.

We then proceeded to outline our program. It turned out to include—means of planning meetings and parliamentary procedure, public speaking followed by constructive criticism from the group, discussions on community problems and organizations like co-operatives, discussions

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on qualities of a leader and leadership, conducting games, songs and folk dances.

As a result everyone participated, many chaired a meeting, acted as secretary, organized and led discussion groups, or led in devotions and recreation.

One project was a conducted tour of Zephyr Textiles. It was a pleasant break from our routine and it was highly instructive.

Each day we had a period in which we evaluated the previous day's work. We tried to correct our faults and retain our good points. With this in mind we planned our community meeting. Everyone was given a particular duty.

Someone once said "if one person underworks then someone else must overwork". Such was not the case at the Leadership Forum for everyone overworked. This Forum has helped me a great deal. Besides making new friends I have picked up many new ideas, particularly on planning programs and conducting meetings. It has been a new and valuable experience for me but there is still

much to learn. Won't you join the next Leadership Forum", concluded Ralph Craig.

Members of the Chateauguay Valley Leadership Forum were—Mrs. J. Ossington, Granby, Women's Institute; Bill Hodgins, Shawville Student Council; Ralph Craig, Ormstown Young Peoples; Rev. Irvine Johnston, Ormstown; Elizabeth Green, Ives Hill and Drapers Corner Farm Forum; Joan Telford, Shawville; Marion Masson, Ormstown Student Council; Mrs. E. R. Westover, Sutton Women's Institute; Walter Hodgman, Vice-President Quebec Farm Forums; David Rankin and Billy McDonald of the Huntingdon Grange; Gerald Duncan, Ormstown Farm Forum; Gordon Lang, Upper Tullochgorum Farm Forum; Raymond Todd, Birchton Farm Forum; Keith Russell, Secretary, Quebec Farm Forums; Eleanor Saracuse, Ontario Folk School Council; Floyd Griesbach, Secretary, National Farm Radio Forum; Roberta Ridley, Information Centre, Macdonald College; James Anderson, Ormstown, Chairman of the Leadership Forum Planning Committee.

The Seed Farm Serves Quebec

by E. A. Lods

It's often the little incidents in life that turn out to be the really important milestones.

BECAUSE one day in 1919 the Quebec Department of Agriculture couldn't get a single car-load of registered Banner oats, the Quebec Provincial Seed Farm was born. The Department wanted the seed for a good purpose; that of establishing a seed production center in order to increase the availability of good seed for local farmers.

The study of the problem by Dr. L. P. Roy, at that time Director of the Field Husbandry Service of the Quebec Department of Agriculture and by the late Professor Summerby of the Agronomy Department, Macdonald College finally resulted in the establishment of a farm to maintain a supply of pure seed. At first the project was a joint effort by the Department of Agriculture, Macdonald College and the Quebec Seed Growers' Cooperative.

The project started with the spring seeding of 1921 on approximately 25 acres of land owned by the Seed Growers' Cooperative at Ste. Rosalie. It was financed by the Department of Agriculture and administered by the Agronomy Department of Macdonald College. This stage lasted for ten years during which time seed production was largely limited to supplying Banner 44 M.C. oats although some barley, wheat and field pea seed were produced.

As a result of the federation of the leading Quebec cooperatives which made the organization at Ste. Rosalie a branch of the new federation and because of the increasing demand for new seed it was found necessary to



Combining clover on the Provincial Seed Farm.

move and expand the project. In addition, the expanded project could only be administered properly by the College if it was moved closer to that institution, consequently part of the College farms were transferred to the project so that 120 acres of fields plus buildings were made available. This greater area permitted arranging fields and rotation so that the seed of a number of crops could be produced in reasonable quantities.

Since the start of the project over thirty years ago pure seed of a number of crops and varieties has been made available to seed growers and others. Of course, the varieties grown have not been the same throughout and the area used for any one variety has varied too.

At various periods and as the needs were determined



Oats and barley are grown on the seed farm too. Careful roqueing keeps the crop pure.

seed of Alaska, Banner 44 M.C., Cartier, Lasalle, Mabel, Roxton and Shefford oats were produced. The barley varieties grown were Byng, Montcalm, O.A.C. 21 and Pontiac. Some seed of Garnet and Huron wheats, Horton fall rye and Chancellor peas were also grown. In addition to these small grains the farm has produced some seed corn, Quebec 28, but chiefly Algonquin a varietal hybrid. For a period and to meet an immediate need sugar beet seed was grown while during the war and for a short period afterwards seed production of Liral fibre flax was carried on. The two main forage crops grown for seed are red clover and timothy. For a few years the clover seed produced was Common Red but for sometime now Dollard has been grown. Up to a few years ago Milton was the timothy seed produced but that too has since been replaced by Climax.

At times seed of four varieties of oats and three varieties of barley were being grown. This necessitated the arrangement of the fields and the rotation so that



This is Algonquin corn harvested on the seed farm. It is seen here in the dryer where it usually remains for four days until all the moisture is removed.

the needed isolation could be achieved and the succession of crops so that the production of a new variety could be started in any season or a total change in any field from one variety to another be made in a couple of years.

The seed produced has been used in a number of ways. In the first place the farm was given an opportunity of quickly making available to seed growers seed of a newly released variety. It has maintained seed stocks which assured general seed growers, either individuals or groups, the opportunity of renewing their stocks when these become faulty. The seed has also been used to introduce good stocks either of an already used variety or of a new variety in districts where changes are needed. In addition it has been used to supply good seed to junior groups in their projects, and some has also gone to producers of registered seed in other provinces.

The Provincial Seed Farm has been a cooperative project. The writer who has directed the work of the project since its inception recognizes that the success of the project would hardly have been possible without the sense of team-work and support given by the authorities of the Provincial Department of Agriculture and Macdonald College. Even with that cooperation the project could not have satisfactorily progressed but for the loyal support of the men working on this farm, and especially that of the foreman.

"JOE BEAVER"

By Ed Nofziger



Forest Service, U. S. Department of Agriculture

"Management of forests is improving but not fast enough. We still have too much timberland loafing—not growing timber."

A Society Is Born

A History Of The A.I.C.

by Lorne W. Hurd

THE Agricultural Institute of Canada, was first proposed at a reunion of Macdonald College graduates in August, 1919. This group of professional agriculturists felt that they had failed to contribute as much as they should have to Canadian agriculture because, lacking a national organization, they and their colleagues across the country were unable to speak authoritatively as a representative body. What was required, both to serve agriculture more effectively and to give the profession the recognition that it merited, was a national society which would include in its membership all university graduates engaged in agricultural education, administration, research, publicity and extension, practical farming, or other allied branches of the profession.

A committee of five, consisting of F. E. Buck, M. B. Davis, F. L. Drayton, F. H. Grindley and G. LeLacheur, was appointed and asked to proceed with the organizational work. Between October, 1919 and June 1920 this group of men worked hard on organizing a convention which was held at the Château Laurier Hotel, Ottawa, June 2, 3 and 4, 1920. Arising out of this convention the Canadian Society of Technical Agriculturists came into being.

The first elected officers of the Society were: *President*—L. S. Klinck, University of British Columbia; *First Vice-President*—G. S. H. Barton, Macdonald College; *Second Vice-President*—J. N. Ponton, Montreal; *Honorary Secretary-Treasurer*—L. H. Newman, Ottawa; and *General Secretary-Treasurer* — Fred H. Grindley, Gardenvale, Que.

Eight years after the organizing convention the Society was incorporated under a Dominion of Canada Charter. In 1945 a further change was made, whereby the Constitution was brought into line with present requirements, and the name was changed to "Agricultural Institute of Canada".

The Chairman of the Organizing Committee, M. B. Davis, stated the views of the founders in these words: "What has been aimed at in the organization of this Society is a far-reaching representative organization of democratic tendencies for the purpose of bringing agricultural scientists of this country into closer touch with each other and with their problems; a Society which shall stand for advancement and efficiency; a Society which shall be a medium for clarifying our various theories and ideas. We have in our free country the right of public opinion, which may bring moral pressure to bear without assuming any direct action. It is hoped that this Society will be a body not seeking powers of jurisdiction but a body with such a reputation that ideas originating within its folds will carry such force and weight that they will be seriously considered by those who guide our agricultural destinies."



Here's the hard working A.I.C. committee lining up a good program for the annual meeting. Standing, left to right, Dr. Crampton and Prof. Maw. Seated, left to right, Colin Muirhead, Dr. Common, Howard Stepler, president of the Macdonald branch, Orville Olsen, secretary, Profs. Hamilton, Ness and Morrison.

Considering the number of years which have passed since the organization was formed, it is indeed a credit to the vision of the founders that the purposes and objects as originally set forth have not required amendment of any kind. The Letters Patent, authorizing the Agricultural Institute to function under the Companies Act of Canada, recognized the following purposes and objects:

To organize and unite all workers in scientific and technical agriculture, so that they may combine effort to promote the scientific and practical efficiency of the profession and be of increasing service to agriculture;

To encourage a national policy of agricultural research;

To help to procure for scientific work in agriculture greater financial support and wider fields of usefulness;

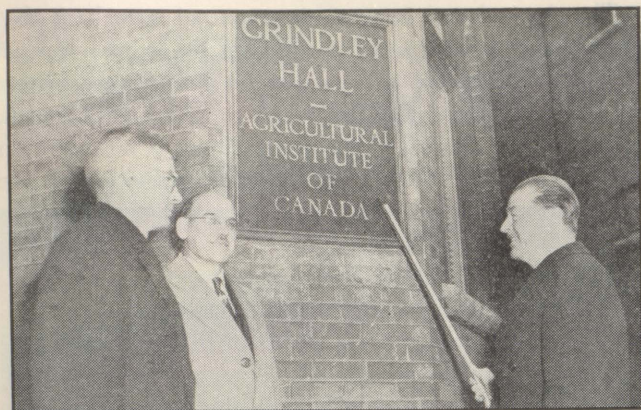
To aid in bringing about a closer co-ordination between the profession as an organized body and the various agricultural associations throughout Canada.

To serve as a medium where progressive ideas for improvements in agricultural education, investigation, publicity and extension work can be discussed, formulated and recommended for adoption.

The Society Grows

For a membership of 417 in 1920, the Institute has grown to include over 3,000 people, all engaged in professional agriculture.

The basic unit of the organization is the *Branch*—of which there are twenty-seven located in agricultural centres from coast to coast and with one in Great Britain to serve members in the United Kingdom. Branch functions



The Governor-General opens the new headquarters of the A.I.C.

include the exchange of technical and general agricultural information; the discussion and study of specific agricultural problems; the presentation of educational addresses by experts; and the formulation of recommendations on provincial, regional or national questions. In addition, Branches arrange educational tours and conduct social events. Branch meetings provide an opportunity to meet old as well as new fellow workers and "talk shop" in a relaxed and friendly atmosphere.

Regional or provincial matters are dealt with by *Regional* or *Provincial Councils*. These exist in most provinces, with a Regional Council covering the Maritimes. A fairly recent development is the growth of provincial professional bodies, incorporated under provincial laws, to promote better agriculture through raising the standards of professional agriculture; to raise the status of professional agriculturists, and to educate the public to recognize and demand high quality professional services in all branches of agriculture. As the type of legislation required for such a development comes within provincial jurisdiction, a separate Act is required in each province. Quebec was the first province to reach this point with the formation in 1942 of La Corporation des Agronomes de la Province de Québec. Saskatchewan members were next to be granted professional recognition when a Bill incorporating the Saskatchewan Institute of Agrologists was passed on April 4, 1946. The Alberta and B.C. Institutes of Agrologists were both incorporated by provincial Acts early in 1947. The years 1950 and 1953 marked the incorporation of the Manitoba and Nova Scotia Institutes.

With the exception of the professional agricultural body in Quebec, the provincial professional bodies now in existence are an integral part of the Agricultural Institute of Canada. The governing councils of the provincial organizations have a dual role, in that they are the provincial councils of the national organization. Similarly, Branches within a given province perform a dual role.

The over-all governing body of the Agricultural Institute is the *National Council*, composed of the President,

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President-Elect, Honorary Secretary and eight Directors. The President and President-Elect are elected by the membership-at-large, while the eight Directors are elected by the members in each of the following provinces or regions: British Columbia, Alberta, Saskatchewan, Manitoba, Western Ontario, Eastern Ontario, Quebec and the Maritimes. The Honorary Secretary is appointed by the National Council. The duty of these representatives is to guide and direct the work of the organization. They keep closely in touch with the Branches and provincial organizations in their respective areas and act as a liaison on matters of general policy. The Directors and officers meet twice a year, once at the time of the Annual Meeting and Convention in June, and in November following the Royal Agricultural Winter Fair. The National Council employs the General Secretary on an annual basis. The General Secretary and his staff of five at the Central Office are the only paid employees of the Institute.

With the growth of the membership in the national organization it was natural that certain specialized groups should develop within the parent body. Such group development has been encouraged. Some of these groups are now known as *Sections*, while others have become *Affiliated Societies*. In addition, certain other agricultural societies, which were formed before or after the founding of the Agricultural Institute, have applied for and been granted affiliation. These groups of specialists are of major importance. They have their own officers, arrange their own programs and meet with the Agricultural Institute at its annual meeting and convention. The Sections of the Agricultural Institute at the present time include: Agricultural Engineering, Field Crops (Western), Horticulture and Soils. The Affiliated Societies of the Agricultural Institute are the Canadian Agricultural Economics Society; Canadian Phytopathological Society; Canadian Society of Animal Production; Western Canadian Society for Horticulture and the Agricultural Pesticide Technical Society.

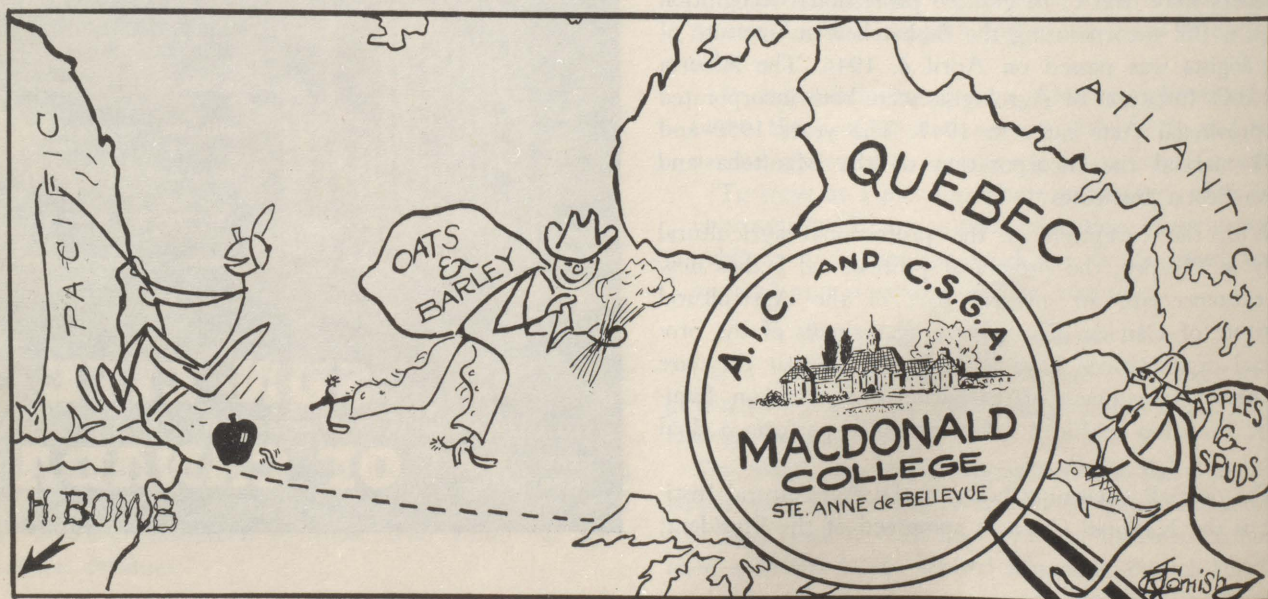
The Agricultural Institute is organized on a basis that permits any member to bring forward a worth-while idea. If he can secure the approval of his Branch, the matter can be laid before the Provincial or National Council, or before the Annual Convention. There is no desire on the part of the officers to dominate activities of the organization and one of its great strengths has been its democratic tendencies.

Working For Agriculture

Major contributions to Canadian agriculture have been made through the combined efforts of the members of the Institute, working through the Branch, Provincial, Regional and National Councils or in the specialist Sections and Affiliated Societies. Some of the more important achievements of the Institute are a reflection of the work of its committees and the action taken by National Council arising out of their investigations and recommendations.

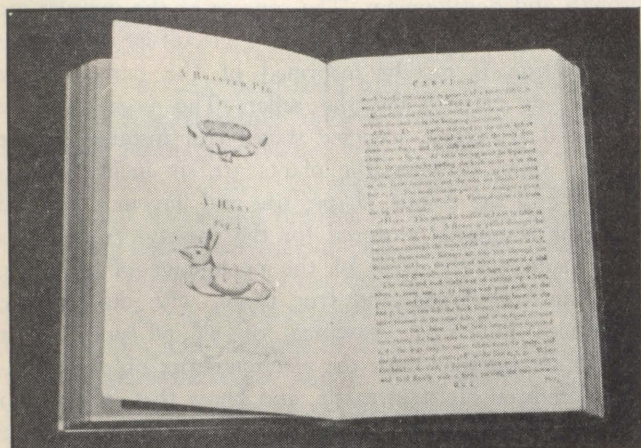
Each year the National Council appoints from among the membership the personnel for the Standing and Temporary Committees of the Institute to assist them with the work of the organization. The Standing Committees, viz. Credentials, Finance, Elections, Publications, Constitution, Fellowship and Honorary Memberships, and Policy, are permanent and their establishment and duties are clearly defined in the By-laws of the Institute.

Throughout its 35 year history the Institute has been actively engaged in trying to improve the status of the agricultural profession and to raise the standards of students in agriculture; to widen the field of employment for professional agriculturists; to push for a national policy on soil and water conservation; to expand the relation between agriculture and industry; to keep Institute members informed on the problems of agricultural research and extension and to work with other national organizations in the interests of Canadian agriculture. These activities have undoubtedly resulted in a more efficient and balanced profession better able to serve the ever-changing needs of Canadian agriculture.



Of Cooks And Cook Books

by Helen Neilson



Dr. Buchan's cook book.

We've come a long way in the art of cookery since the first early cookbooks were published.

TODAY, proficiency in the supervision, preparation and service of food whether in the home or community is looked upon as a worthy accomplishment. It seems, however, that a very different attitude existed at the turn of the nineteenth century. Take, for instance, the book recently acquired by the Macdonald College library. It was written in 1823 and bore the imposing title of, "A New System of Domestic Cookery, founded upon Principles of Economy and adapted for the use of Private Families." It was stated to have been written by a lady who, apparently lacking the courage of her convictions, preferred to remain anonymous; however, she dared to express the opinion that, "In every rank, those deserve the greatest praise who best acquit themselves of the duties their station requires."

In contrast, 38 years later Mrs. Isabella Beeton boldly published her book on Family Cookery in 1861, and it was destined to achieve almost world-wide recognition. Mrs. Beeton's name conjures up thoughts of a venerable old Victorian lady dressed in black taffeta, and writing from a lifetime of experience in the art of cookery. Actually she died in 1865 when she was only 28 years of age. During her early married life she knew little about cooking and found the job of running a household a hard task. This led her to publish a cook book which would help other women in similar situations. She collected recipes from friends and neighbours and tested them all carefully in her own kitchen before including them in her book.

This change in the attitude of educated women towards accepting more responsibility in the preparing and serving

MODERN APPLIANCES

in YOUR

FARM KITCHEN



Yes, why not? A Farm Improvement Loan can be used for farm electrification *and* for buying certain electrical appliances for your farm kitchen. Ask your friendly 'Royal' branch manager to tell you all about the many things we can do with Farm Improvement Loans.

New edition of the booklet, "Farm Improvement Loans" is available. For your copy write the Advertising Dept., Head Office, Montreal.

THE ROYAL BANK OF CANADA

YOU CAN BANK ON THE "ROYAL"

of food was the fore-runner of the home economics courses given by our colleges and universities today.

Significantly one of the earliest cook books which, incidentally, is also in the Macdonald College library was written by a doctor named William Buchan and published in two volumes during 1790. It has the lengthy and heavy title of, "The Ladies Library or Encyclopedia of Female Knowledge in every Branch of Domestic Economy." The chapters are arranged alphabetically by subject, and the book is full of such odd situations as a chapter on the itch followed by a chapter on jellies!

It is 160 years since Dr. Buchan's book was published and these years have seen the development of a new profession, namely Dietetics. From the dawn of time, women have cared for the sick, fed the hungry and generally contributed to the welfare of mankind. With changing social and economic conditions, however, many of the services which women performed in the home are now carried out by the community. This has changed women's status; they are still engaged in these same tasks, but on a broader scale as dietitians, home economists or teachers. It is fitting, therefore, that courses in home economics leading to careers of service in these three fields should be offered at Macdonald College whose motto is, "Mastery For Service."

You Can Trust These Vegetables

by Tom Pickup

IF YOU visit Macdonald College during the summer months, you may observe some very unusual ways of handling vegetables; the number of peas in pods and the rows of kernels on cobs of corn being counted; the width and length of radishes, carrots, parsnips, pumpkins and cucumbers measured; the colour of beets compared; and the sexes (all four of them) of spinach plants determined with the aid of a magnifying glass. These operations are carried out every year on the Trial Grounds of the Department of Horticulture.

For a number of years Co-operative Vegetable Trials have been conducted in this Department. They were authorized in 1937 by Dr. Barton, Deputy Minister of Agriculture, as a result of a recommendation by the Canadian Seed Growers Association. Agreements to co-operate in these tests were reached between the Seed Branch (now the Plant Products Division), Experimental Farms Branch of the Ministry of Agriculture, the Canadian Seed Growers' Association, and the Horticulture Department of Macdonald College, Vineland Experimental Station, Manitoba Agricultural College, and the University of British Columbia. Tests were also conducted at the trial grounds operated by the Seeds Branch at Sackville, N.B.

Three kinds of tests are carried out on vegetables at Macdonald College, namely for Purity of Variety, for Merit, and for Verification. The Purity of Variety tests are done in order to keep a check on the seeds which the market-gardener, farmer and amateur gardener buy from the stores or seed companies. In these tests the question is, briefly: does it live up to the picture on the package? This is something which the buyer usually takes for granted, just as he does when he is buying other commodities, but because plants are living things with a private life of their own, it is sometimes more difficult for the seed-producer to guarantee that every seed that he sells will grow into the kind of plant that he says it will, than it is for the manufacturer of nuts and bolts to guarantee that his products will be turned out exactly to specification. He may, for instance, have to grow the plants from which he is going to harvest seed a mile or more from other varieties or kinds of vegetables in order to make sure that wind or insects do not carry pollen from one to the other and cause cross-pollination; and he must also be very careful that different kinds of seed do not get mixed up during the operations of production, harvesting, packing and shipping. A single stray plant or "rogue" in a seed-man's field could very well cross-pollinate a number of the "true" plants, and result in the production of considerable off-type seed. Samples of the seed of many different kinds and varieties of vegetables chosen at random from commercial stocks are sent to the College every year under code numbers, by the Dominion Gov-

ernment and are impartially tested for purity in the best conditions which can be provided to ensure normal growth and development. The sources of the samples are known only to the Department of Agriculture at Ottawa; the College is merely informed of the name of the variety, as claimed by the seller. The vegetables are harvested at certain specified stages (for instance, in the case of spinach, when the plants are six inches in diameter) and the colour, shape, size and flavour compared with the standards required for the variety. A report is then made on the basis of the percentage of off-types, approximating types, and true types, with descriptions, sometimes including drawings, of all off-types. Most people are familiar with the characteristics of, for example, pure-bred Holstein cattle, and know that in order to qualify for registration in the herd-book, an animal must conform to fairly rigid standards of colour, weight, and shape. They may not be aware, however, that similar standards apply also to vegetable varieties. A "Cherry Belle" radish, for example, is required to be very nearly spherical, crimson red outside and white inside. In our experience, one or two out of every hundred roots grown from a sample of Cherry Belle seed will be purple or white in surface colour, and there will be some, even though great care has been taken not to sow the seed too deep, which will be tap-rooted.

In general, it has been found, during the past few years, that samples of vegetable seed tested for purity of variety at the College, have been well up to standard, but that the grower must expect some variation in the shape of root vegetables such as radish, carrots and beets, probably owing largely to soil and moisture conditions.

R.O.P. Vegetables

Merit trials are rather like R.O.P. tests of livestock. In other words, they are carried out to test yield, quality, thriftiness, and hardiness. New varieties of vegetables are



Weighing tomatoes to compare yields of different varieties.

constantly being developed by plant-breeders with a view to increasing yields, overcoming disadvantages of climate such as drought, excessive cold and heat, and shortness of growing season, producing good yields early enough to take advantage of high market prices; introducing disease resistance; meeting consumers' demands such as the popular reference of the Montreal market for a pink tomato; satisfying processors' requirements, for example, the Catsup makers' need for a tomato with less juice and more pulp; eliminating undesirable characteristics of otherwise admirable varieties such as stringiness and fibre in beans, early bolting (seed stalk growth) in spinach and lettuce, and spines and prickles in small cucumber fruits; developing dwarf varieties of peas, and bush (instead of climbing) varieties of beans, and so on. All these new kinds and varieties of vegetables must be tested in different localities and climates in order to find out if they live up to expectations, and if so, where they are best suited to local conditions of soil, weather, and market. For this purpose seeds are sent to experimental stations throughout Canada by government, university, commercial and private plant-breeders in all parts of North America and, in some cases, in Europe. This year, for instance, we are testing at the College an early variety of tomato produced last year at Fort Simpson, N.W.T., by one of our students; four varieties of muskmelon from the United States, which are claimed by the seed company to resist fusarium wilt; a tetraploid variety of radish (i.e. a radish in which the chromosome number has been doubled), and a number of onion and corn hybrids.

As an example of the methods used in judging the merits of vegetable varieties, we may mention the procedure used in the case of tomatoes at the College in 1952. Twenty plants of each of over thirty different varieties were grown. Yields were weighed every two days from the beginning of July to the end of August, and the market value of the crop obtained from each variety was estimated. By this means it was possible to decide which were likely to prove the most profitable to market-gardeners.

It was found that the variety Quebec No. 5 gave the best returns, chiefly because of its earliness, high yield of marketable fruit, freedom from cracking and splitting, attractive appearance, and ability to maintain production throughout the growing season. It was, however, found to be rather on the small side for the Montreal market, and there appeared to be some falling off in size during the later part of the summer. Quebec Pink No. 245 produced a crop only a little more than half the weight of the Quebec No. 5 yield, but of nearly two-thirds of its value. This was due to the higher prices paid on the local market for pink tomatoes. Quebec No. 59, Quebec No. 13, Harrow, and Carleton came second, third, fourth, and fifth respectively, in order of crop value; Quebec



Many different varieties of vegetables are tested in the College plots.

Pink No. 245 was eighth, and the well-known variety Bounty, twelfth in value.

The third kind of trial carried out with vegetables at the College is for the verification of foundation seed stocks supplied to us by the Canadian Seed Growers' Association, in order to decide if such stocks are pure enough to qualify for seed production. In other words, the verification tests are a careful and elaborate trial of purity of variety. By means of them, a check is kept on the shape, size, colour, date of maturity (i.e. earliness) and other characteristics of vegetable varieties. The standards are fairly strict. For instance, the width of a Detroit Dark Red beetroot must be between nine-tenths and eleven-tenths of its length. Thomas Laxton peas must be approximately three and a quarter inches in length, and the head of a Penn State Cabbage must be very nearly spherical. Samples of vegetable seed which yield off-shape, off-colour, or otherwise off-type products are not recommended for Seed Stock status. Because of such painstaking checking of seed, the market-gardener can be reasonably sure of producing the type of vegetable he wants, and the housewife who buys, for instance, Golden Bantam corn, is assured of getting the familiar sweet-tasting, uniform, eight-rowed cobs that she expects.

Do You Know?

That the number of farms in Canada according to the 1951 census is 619,461.

That 13.4 percent of these farms had gross incomes under \$1200.

That 24.4 percent of these farms had gross incomes under \$2500 but over \$1200.

That 23.4 percent of these farms had gross incomes under \$5000 but over \$2500.

This means that 61.3 percent of all farms have gross incomes of less than \$5000.

That 14.6 percent reported gross incomes of \$5000 and over.

Feeding, Breeding, Management

by E. W. Crampton

The Quebec Feeders' Guide, which is issued annually by the Quebec Provincial Feed Board takes care of one side of this triangle.

PRIOR to 1928 many farmers of this province complained that when they asked for information on livestock feeding from the different agencies offering such services, such as The Oka Agricultural College, the agricultural school at Ste. Anne de la Pocatière, Macdonald College, the Federal Department of Agriculture through its experimental farms units or the Provincial Department of Agriculture through its agronomes and field services, they frequently got what to them appeared to be conflicting recommendations. These recommendations were, of course, not contradictory but often appeared that way to the farmers as they were given in differing terms.

Believing that this situation could be improved to the benefit of all concerned, a Provincial Feed Board was organized on which were represented the Livestock Division, Quebec Department of Agriculture, each of the three agricultural colleges, the Livestock Division, Central Experimental Farm, Ottawa and a representative of the feed control officials also from Ottawa. The Board was organized in 1928 and has been in continuous operation since.

The objectives of the Feed Boards were to unify the recommendations for livestock feeding other than feeding practices. To this end the Feed Board was to meet annually and at that time to prepare a set of rations for the various classes and types of livestock, which in the opinion of the Board were satisfactory for the purposes intended and which would be recommended to farmers in this province by all of the agencies that might be asked for such information.

The Board Works

The Feed Board meets annually at the expense of the Quebec Livestock Department and at each meeting the Secretary presents a complete proposal for the recommendations for the ensuing year. These are discussed by the members of the Board, modified if necessary, and eventually the revised and approved formulas are published. The recommendations are made to coincide with the Feeding Stuffs Registration year.

The Board decided definitely not to recommend feeding practice since it believed that this was a local matter and one which might differ without in any way affecting the performance of the livestock. The Board also decided against recommending or putting any stamp of approval on formulas submitted by feed manufacturers or other organizations. Any organization, however, including the feed manufacturers, is at liberty to use the Quebec Feed Board formulas for any of their rations providing the formula is published on the tag describing the ration. If it



Feeding the right quantity of meal to a milking herd means the difference between profit and loss.

follows these instructions it is permitted to state that the ration was one proposed by the Quebec Provincial Feed Board.

Gradually the interests of the Board were expanded to include brief statements of factors on which the feeding values of products were based; on methods of preparation of certain types of feeds and some discussion on roughages. There were also sections on the use of balanced rations; the use of feeding standards and some general information on the total requirements of livestock for feedstuffs.

One of the important developments which came out of the Feed Board operations was the flexible formula which is now the form in which all ration recommendations are made. The feature of the flexible formula is that it indicates what and to what extent substitutions among feeds may be made in the pattern mixture given.

For several years the recommendations of the Feed Board were issued in mimeographed form and distributed on request to farmers and feeding organizations. Later funds were secured from the Department of Agriculture to print a bulletin in both French and English. This scheme, however, led to some difficulties and it was decided a few years ago to prepare a combined French-English publication even though both languages were not needed in any one case. The bulletin now contains about 70 pages each of French and English material.

It is of some satisfaction to the Feed Board that this bulletin has been purchased in quantity in England to be used as an elementary text on feeding and it has also been purchased in quantity by some other Canadian provinces for distribution among their farmers.

One of the features of the bulletin is that it is reviewed and revised and a new edition published annually and consequently is as nearly up-to-date as it can be made

incorporating the latest findings which affect the makeup of satisfactory rations for livestock.

Since it is revised annually it is printed in relatively small numbers and is distributed only on request. However, any farmer or any organization in the Province of Quebec can get a copy of this bulletin without cost. Requests coming from other provinces or other countries are filled as long as the supply is available on payment of a charge of 25 cents per copy. Many of the agricultural students in colleges throughout the United States send for this bulletin as a part of their textbook material for their courses in feeds and feeding.

The bulletin is used extensively by feed manufacturers as a general guide for the formulation of rations and for information concerning feed-stuffs.

It is of some interest perhaps also to know that the idea of the Feed Board was conceived at Macdonald College and that the persons responsible for its original formation were Dr. G. S. H. Barton, at that time Dean of the Faculty of Macdonald College, Mr. S. J. Chagnon, then Deputy Minister of Agriculture of the Province of Quebec and Dr. E. W. Crampton on the Department of Nutrition, Macdonald College. Since the inception of the Feed Board, Dr. Crampton has been Secretary. The Deputy Minister of Agriculture for the Province of Quebec has been the Chairman of the Board throughout its existence.

KEEPING THE ACCOUNT BALANCED

Forty bushels of wheat and 50 bushels of barley take from the land the equivalent of 100 pounds of superphosphate. Seventy-five bushels of corn remove 121 pounds of nitrogen, 44 pounds of phosphoric acid and 90 pounds of potash, as a matter of fact all crops extract a certain amount of these plant foods—some more than others. What we really want to put over is the close relationship between farm arithmetic and high crop production, for after all what last year's crop took from the soil must be accounted for and replaced this year.



The experimental farms service serves a highly useful purpose for Canadian agriculture.

Naugatuck AGRICULTURAL CHEMICALS

Grain growers, fruit growers and farmers generally are becoming increasingly aware of the important contribution being made by organic chemicals to increase Canadian food production. To meet the demand of this ever-broadening market, the following agricultural chemicals are now available for immediate delivery.

FUNGICIDES

Ferbam (Ferric dimethyl dithiocarbamate)
Thiram (Tetramethylthiuram disulfide)
Nabam (Disodium Ethylene Bisdithiocarbamate)
Ziram (zinc dimethyl dithiocarbamate)
Phygon (seed protectant and foliage spray)
Sperguson (seed protectant and foliage spray)
Trichlorophenol and Sodium Salt
Mixed Polychlorophenols and Sodium Salts

ANTHELMINTICS

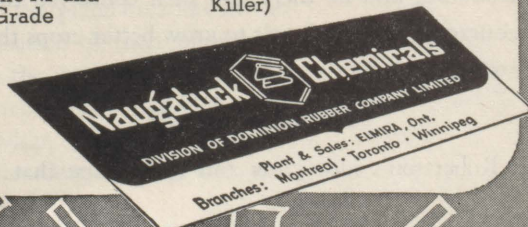
Phenothiazine NF and Drench Grade

INSECTICIDES

Aramite Technical
Aramite Formulations
D.D.T. Technical
D.D.T. Concentrates
Lindane Technical
Lindane Formulations

HERBICIDES

Weed-Bane (Amine, Ester)
Brush-Bane (2, 4-D and 2, 4, 5-T combination)
2, 4-D acid, Ester and Salts (Regular and Low Volatile)
2, 4, 5-T acid Ester and Salts (Regular and Low Volatile)
Alanap-1 (N-1 naphthyl phthalamic acid)
Maleic Hydrazide
Phygon (Aquatic Weed Killer)



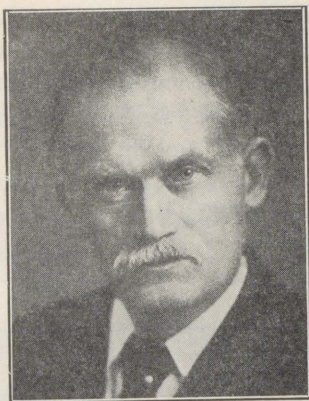
The Seed Growers Association

FROM the earliest days of crop production in Canada, it has been known that there existed a great variety of soils and climatic conditions. This is not surprising when you think of the vast size of our country, but it was baffling for the new settlers as they moved from one section to another and found that the crops they grew so well in one section would not grow in the new, and in their desperation they imported seed from every possible source. This didn't really improve the situation either, but as agriculture became more organized steps were taken to test the usefulness of these imported varieties. This was a step forward which resulted, ultimately in the establishing of an elaborate plant breeding program. Since quality and variety soon became closely associated in many of our crops, the need for a means to provide a source of seed pure as to variety became necessary. It was to provide for this need that the Canadian Seed Growers Association was established.

It was before a glowing fire in the library of a home in Ottawa, three nights before the Christmas of 1898, that the romance of growing seeds which were true to their names had its beginning. Dr. Robertson, at that time Commissioner of Agriculture for Canada, was watching his baby daughter tumbling on the rug, but other children less fortunate were in his mind. He was thinking what the lot of these children would be when they reached manhood and womanhood, fighting an unequal battle on the prairies and in the bushlands, clearing the land, plowing, sowing and in many cases reaping a scanty harvest. He had studied the seed improvement systems of Europe, and had come to the conclusion that some definite plan for the improvement of crops must be introduced, and he there and then conceived the idea of encouraging boys and girls to grow better crops through better seed.

The Idea Spreads

Dr. Robertson's idea grew and took shape that spring



Dr. Robertson started the organization.

when he set aside the sum of \$100.00 for the purpose of giving prizes to boys and girls for collecting the best one hundred heads of wheat and oats from the crops on their fathers' farms. The response to this competition was so good that Dr. Robertson thought that more prizes might encourage more boys and girls to get in on the act and at the same time serve the national interest by selecting and producing high class seed.



Mr. Newman was the first secretary-treasurer.

A little calculation and planning made it apparent that about \$10,000.00 would be needed to carry out the plan. Sir William C. Macdonald was approached and willingly agreed to put up the money, this contribution made possible an organization which became known as the Macdonald-Robertson Seed Competition.

It was out of this seed competition for boys and girls that the Canadian Seed Growers' Association arose. In 1904 when something like 1500 boys and girls had competed for prizes the Macdonald-Robertson Seed Competition became the Canadian Seed Growers' Association. It is an interesting fact that the fathers of many of these boys and girls became members of the newly-formed organization.

The history of the Association has been an adventure in successful effort to establish high standards and high ideals. Its development has been so sure and steady that today, with its large membership and many sided activities it is a solidly established institution which can be said to play an important and vital part in the shaping of Canadian agriculture.

The Association is incorporated as a national organization of seed growers. It operates in all the provinces of Canada. It is incorporated without share capital as provided for under The Companies Act of Canada. The control of its operation is vested in the President and nineteen directors. The head office which is in Ottawa is in charge of the Secretary-Treasurer.



George Clark made a great contribution.

What Does It Do?

The main objects of the Association are to advance the interests of Canadian agriculture by encouraging seed growers and farmer-members to maintain a high standard of excellence. To define the standards of quality for varieties and strains that shall be eligible for registration, and to establish and maintain a record of the varieties and strains that are approved for registration. To fix standards for the different classes of propagating stock of varieties and strains that may be eligible for registration, and to make provision for the necessary inspection of field crops and propagating stock and to maintain records of registered propagating stock produced by members. To encourage the development and introduction of superior varieties and strains; to provide for the multiplication and dissemination of propagating stock of new varieties approved for registration; to co-ordinate the endeavours of plant breeders and seed growers who are members of the Association with the endeavours of the crop producers in general.



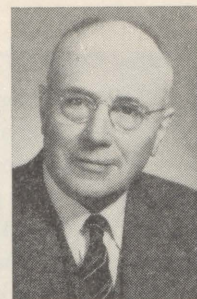
Mr. Farquharson
is president.

The supervision of the registration of crops is entirely under the control of the Canadian Seed Growers Association. This includes all matters pertaining to the acceptance of varieties and stocks of all seed crops for registration; the setting of standards of crop purity; the enforcing of all regulations governing the registration of seed crops; the approving of crops and the issuing of crop registration certificates, and the administration of all the affairs of crop registration related to recording crop pedigrees, crop inspection and establishing policies of operation.

With the issuing to the grower of a crop registration certificate on a seed crop, the responsibility of the Association ends insofar as that particular crop is concerned. The final processing of the seed for marketing under the registered seed grades is done under the direct control of the inspectors of the Plant Products Division. This is made possible through official recognition under The Seed Act of the crop registration certificate of the C.S.G.A. In addition registered seed is an official grade under The Seeds Act and to protect the grade registered seed is sold only in containers properly tagged and sealed by a Plant Products Division inspector.

All crops given registration are inspected by inspectors

approved by the Association. Since both the Plant Products Division and the C.S.G.A. are financed by the Canada Department of Agriculture there is an interchange of work between the staffs of both organizations. Thus while full responsibility for field inspection of crops for registration rests with the Association, the work of field inspection is done by the inspectors of the Plant Products Division.



Prof. Lods is
vice-president.

Improving The Plant

The plant breeders of Canada have made and will continue to make valuable contributions by way of improving varieties of crops used by Canadian farmers. These contributions have been and will be, the result of painstaking work and the expenditure of considerable sums of money and, for this reason alone, have been and will continue to be valuable. However, it is not what these things cost in time and money that will measure their true value, but rather the results that the everyday farmer will obtain from the use of better varieties of crops.

It is easy to speak in glowing terms of the benefits that may be derived from a new variety, but careless multiplication of the seed of a new variety can in a short space of time destroy what has taken the plant breeders fifteen or twenty years to build. In formulating its policy the C.S.G.A. has endeavored to provide the necessary safeguards to protect the work of the plant breeder, the Federal government and the provincial plant breeding institutions.

The function of the plant breeder is to develop new varieties and strains of farm crops and, by plant breeding methods to improve standard varieties of farm crops. In addition he is charged with developing primary breeding stocks of standard varieties which can be multiplied by the farmer grower, or which can be used by those directing the farmer grower as the type standard for the variety.



The present secretary-treasurer is Mr. Wiener.

If in our work we can continue to assist the plant breeders in the multiplication of their improved strains and varieties and provide the necessary safeguards to protect the quality of these varieties the C.S.G.A., through the activities of its membership, will continue to make a very liberal contribution to Canadian agriculture.

The Professional Agriculturist In Quebec

by René Monette*

LA Corporation des Agronomes de la Province de Québec is a professional body which may be likened to such associations as the College of Physicians and Surgeons, the Corporation of Professional Engineers, etc. As organized in 1942, its main purpose is to assure the competence of the members of the corps of technical agriculturists working in Quebec; to eliminate the unqualified and the undesirable; to insure the good reputation of the profession; to see that agricultural students receive a sound basic training, and to encourage and help its members in the performance of their duties.

The Act of Incorporation defines "agronomy" as the study of the laws or principles which permit the application of science to agriculture, and by the term "agronome" is understood anyone who devotes himself to studying, teaching, and experimenting with the laws or processes of the growing, production, improvement, acclimatization and protection of agricultural plants; to the breeding, nutrition and use of farm animals; to the problems of milk production; to soil classification, improvement, draining, fertilizing and general use of arable land, and to the administration and operation of agricultural enterprises.

To become a member of the Corporation the applicant must prove to the satisfaction of the Corporation that he holds a degree in agricultural science from a recognized university; he must be a British subject, take an oath before the Secretary, and pay an admission fee of \$17.00 plus annual dues.

No person may, in the Province of Quebec, use the title of agronome or technical agriculturist, nor practise as such, (except provincial civil servants) unless he is registered as a member of the Corporation. While a good number of the agronomes in Quebec are civil servants, employed by a federal, provincial, or municipal government, about half are at present employed by private firms.

Organization

The Corporation possesses all the powers conferred upon civil bodies throughout Canada, and all powers that may be exercised by such professional associations in Quebec, as well as all powers that may be deemed necessary to attain the ends of the Corporation. It may adopt by-laws for its internal management and for the maintenance of the honour, dignity and discipline of its members; it may set conditions of admission, suspension or expulsion of its members, determine the qualifications necessary for admission of candidates to the study of and to the practice of the profession; may determine the professions, callings, industries, trades or offices which are incompatible with the practice of the profession, and establish the amount of the annual fees.

Overall authority is vested in the General Council which delegates its powers to an Administrative Committee. The General Council consists of delegates from the corporations of sections, each having one vote for every five members, the members of the Administrative Committee, its secretary-treasurer acting as secretary-treasurer of the General Council, and a president and two vice-presidents elected by secret ballot by the members of the General Council. The Administrative Committee consists of the president and vice-presidents of the General Council, the president of the council of each corporation of section, and a secretary-treasurer selected by the Administrative Committee.

Each corporation of section (local branch) is organized similarly and holds similar powers, except those pertaining to the maintenance of discipline, admission to study and practice, or those having to do with the welfare of technical agriculturists as a body.

Early History

The Corporation as it is at present constituted is the successor of La Corporation des Agronomes du Québec, which operated from 1937 until 1942. In its five years of life, the original association accomplished a great deal. Among other things, it obtained a professional charter, extended the benefits of the pension fund of the Department of Agriculture to include non-permanent technical agriculturists, and established a system of low-cost group life insurance (still available under the present Corporation).

The present Corporation has endeavoured to take full advantage of the new Act. A health insurance service for members and their families is maintained. An automobile group insurance policy was set up in 1943 which now insures 300 policyholders. In the same year a fund was established which provides bursaries to help members take advantages of advanced training in agriculture. Since 1944 the Corporation has published "Agriculture", a quarterly review containing about 100 pages in each issue, which is the official organ of the Corporation and serves as a medium by which agronomes and others are kept advised of new developments in scientific agriculture.

Educational work is constantly being carried on through the monthly meetings of affiliated or regional corporations. Various committees of the Corporation are constantly at work, investigating such things as agricultural teaching and research; industrial crops; economic and social problems. Then the general meeting includes exhaustive studies of various problems—conservation, the dairy industry, agricultural research, marketing of farm products being a few covered to date. The Corporation has presented two important briefs to government-appointed bodies; to the

(continued on page 31)

*Secretary-Treasurer, La Corporation des Agronomes de la Province de Québec.

COLLEGE LIVESTOCK



Spring is an excellent time to review your livestock breeding results. The young calves, lambs and pigs give you your first opportunity to judge how newly tried sires are performing. The quality of your livestock rises and falls depending on the effect of the sires you use. Records make you more conscious of the importance of the sire.

The above pictures are intended to acquaint you with the College herds and flocks. Good families are important but groups of individuals by one sire give a better representative sample of the College livestock.

Top left is four of Carnell Pearlstone's oldest daughters. Pearlstone is the senior Ayrshire herd sire. The above group of heifers freshened last fall. It is too early to report on their production, but they have good udders and legs. A number of Pearlstone daughters are out of dams sired by Leitchcroft Merry Scholar. Scholar recently obtained a three star rating, the highest rating obtainable for daughter performance.

Top right, "Trojan Udders". Montvic Rag Apple Trojan left the College herd over ten years ago. Six of his daughters still remain to remind us of what he did for the Holstein herd. His two daughters above are twelve and ten years old respectively. The six daughters in the herd have produced collectively 42 lactations totalling 631,541 pounds of 3.77% milk and each are in the process of commencing or completing an additional lactation.

Stocks of butter and cheese up in 9 regional cities on April 1. Butter stocks amounted to 31.4 million pounds as compared with 18.7 million pounds last year, and holdings of cheddar cheese totalled 11.8 million pounds versus 11.1 million pounds the previous year.

A large number of the junior members of the herd are out of Trojan daughters and sired by Macdonald Oleana Supreme Ajax. Supreme Ajax daughters were good enough to rate him a place in the Hamilton, Ontario, Artificial Insemination Unit. This is Macdonald Oleana Supreme's fourth son to serve in an Artificial Insemination Unit.

Bottom left is Black Barbarian of Kingshaven, Aberdeen Angus herd sire. His first calf crop has arrived. If his calves develop as well as the calves sired by the two previous sires, we will be pleased with his performance.

Bottom centre is a line-up of Border Cheviot Ewe lambs by one sire. Southdown, Border Cheviot and North Country Cheviots flocks are maintained. The Border Cheviots are a bit larger and more rugged than those popular at the shows. Rams and ewes have been shipped to New Zealand, U.S.A. and various Provinces in Canada from this small flock. The North Country Cheviot is a fairly new breed in Canada. Larger and heavier boned than the Border, they are increasing in popularity.

Bottom right shows a young Yorkshire boar that has been used in the College herd. The boars used at the College have been selected on the basis of the performance of their sires and dams in Advanced Registry work. They have produced large litters that have graded well when marketed.

Increased packaging of dry skim milk for the retail trade occurred in 1953 when nearly 6 million pounds were put up in 1953 compared with 4.8 million pounds in 1952 and 2.6 million pounds in 1951.

Market Prospects

WE believe that the following analysis of the 1953 livestock market to be of prime importance to all farmers and should be read and thoroughly understood by them, for it is only when farmers understand the market and the trends set in motion that they will be able to sell on the best market, for instance, good steers went down in price in the usual low autumn period. How many farmers figured this into their calculations when they were finishing their steers? How many know that lambs were least effected by the general price recession last year? These are factors to be considered in planning for future years; those are the factors which spell the difference between profit and loss.

Output: Primary marketings at stockyards, packing plants and direct on export—Cattle 1,748,787, increase 23.6 per cent; Calves 823,719, increase 30.4 per cent; Hogs 5,018,081, decrease 25.1 per cent; Sheep 550,614, increase 3.6 per cent.

Quality: More cattle finished to heavier weights came on the market in the first quarter of 1953. This was a result of the continued lack of an export outlet until March and was clearly defined in increases of five to eight per cent or more in the percentages of grades A and B beef carcasses graded in that period. From May onward, quality was mostly on a par with the previous year. Grade A carcasses were 17.6 per cent of the total beef graded in 1953 (1952—17.4 per cent), grade B 18.1 per cent (1952—17.5 per cent). The average dressed weight of inspected slaughter was 506.6 lb. or about seven pounds below the previous year and in line with 1951. Grade A hogs declined for the third year to 27.3 per cent of the total, the poorest showing since commencement of carcass grading, and B1 hogs were 43.1 per cent (1952—41.2 per cent). Good quality showed as an increase of 2.6 per cent of the total veal calves. Common lambs increased over two per cent at the expense of good quality and buck lambs.

Prices: Unusual evenness characterized cattle prices in 1953. After settling down \$2-\$3 in January-February, the average price of good steers at Toronto rarely varied more than \$1 below or above \$20.25, which was the yearly average for good steers at that market. Similar conditions prevailed elsewhere, with the usual low autumn period when good steers went down to \$18 at Toronto. Average price, all cattle, all markets, at \$15.30 was a decrease of 23.5 per cent; calves at \$18.35 a decrease of 17.3 per cent. The price declines were more pronounced in the medium and common classes than among the better qualities. Hogs opened the year on an ascending scale, eased off in late January to little better than \$23, basis Toronto. Spurred on by decreasing runs, the market then gradually moved up to the high point at Toronto of \$36.75 in August. All-Canada average for hogs in 1953 was \$29.20, an increase of 16.5 per cent. Lambs

were least affected by the general price recession. Average price of all sheep and lambs was \$19, a decrease of 11.2 per cent. Prices of calves and lambs, while considerably lower than in 1952, were closer to the levels of 1949.

Hog Production Increasing . . .

It seems likely that there will be more hogs for slaughter in the Fall and early in 1955. According to intentions reported by farmers at December 1, 1953, the Bureau of Statistics estimates that 632,500 sows will farrow during the six-month period ending May 31, 1954. This is about 36 per cent above the number of sows farrowed for the spring crop in 1953. The forecast indicates increases of 37 and 34 per cent for East and West respectively.

Hogs on farms at December 1, 1953, estimated at 4,721,000, decreased almost 10 per cent from the total of 5,237,000 at December 1, 1952. The decrease in Eastern Canada was almost 10.5 per cent compared with approximately 9 per cent in Western Canada.

The fall pig crop (pigs saved in the June-November period) was about 5.5 per cent lower in 1953 than in 1952, with sows that farrowed about 9 per cent lower. Favourable weather during last fall probably was the most important factor contributing to a higher yield of pigs saved per sow. The average of pigs saved per sow in Eastern Canada was 8.28 as compared with 8.01 in 1952, while in the West it changed to 7.66 from 7.39.

The Bureau report shows that the hog-barley ratio was more favourable during the last half of 1953 than for any six-month period in the last twelve years.

Quebec Loses A Stalwart

The Journal joins the rest of the agricultural world in mourning the death on April 7th of Mr. P. D. McArthur.

Commander of the Order of Agricultural Merit, Master Breeder of Ayrshire cattle, past president of the Canadian Ayrshire Association, charter member of the Quebec Ayrshire Association, president of the Montreal Milk Producers' Association, member of the Quebec Dairy Commission, first president of the Quebec Council of Farm Forums, Mr. McArthur's knowledge and competence were always at the disposal of his fellow men, and his wise counsel at countless meetings (one of which he was attending when he passed away) will be sorely missed.

To Mrs. McArthur and her three sons we offer our most sincere sympathy.





DEPARTMENT OF AGRICULTURE

*Activities, Plans and Policies of the Quebec
Department of Agriculture*

Quebec Leads With Maple Products

Maple syrup and sugar making continues to be big business in Quebec—the only province and, in fact, the only area in North America, where production is not declining. Something like 30,000 people are actively engaged in harvesting the sweet crop each spring in 21,000 bushes where 22,000,000 trees are tapped, to produce about 85% of all Canadian production, and more than is produced in all the United States where maples are found.

The Quebec Department of Agriculture has been active in promoting better methods of producing a syrup that will be light in colour, of good aroma and taste, and with good keeping qualities. In the demonstration sugar bushes at St. Benoît and at Plessisville these methods are practised and shown to anyone who is interested, while the inspectors of the Department check regularly to see that all is in order in the individual cabins.

The best syrup is made when the sap is boiled fast during the first stages, and a new type of evaporator designed by Dr. Cholette of the University of Laval is installed in both the demonstration bushes. This works something on the principle of the radiator of an automobile engine, and is arranged so that a thin film of sap passes constantly through vertical flues surrounded by the hot gases and flames of the fire. Evaporation is fast until the sap has been concentrated to the proper density, when it passes on into the conventional part of the evaporator where it is finished more slowly.

Another invention of Dr. Cholette's is an automatic valve at the end of the evaporator pan which draws off the finished syrup as soon as it reaches the proper temperature. A sensitive thermostat opens the valve when the syrup reaches the correct temperature, and shuts off the flow as soon as all the syrup at that temperature has run out. In this way the human element has been removed, and only properly-finished syrup goes into the can.

But all the efforts of the Department to produce a pure maple syrup will be nullified if the buying public is content to accept anything that is offered in the guise of maple products. If the consumer would insist on buying only maple syrup which is identified on the container with the name of the producer and the grade of syrup contained in it, those who sell adulterated products would soon find themselves out of business. The Department does everything it can to assure purity of the product;

the consumers must play their part in accepting only these products.

A crop which is worth some \$7,000,000 a year deserves good merchandising, and the efforts of the Department to convince producers that they should pack their syrup in containers which are smaller than the familiar gallon cans is beginning to bear fruit. More and more operators are packing syrup in 26 ounce cans which are more popular with the housewife.

Where Have Our Little Lambs Gone?

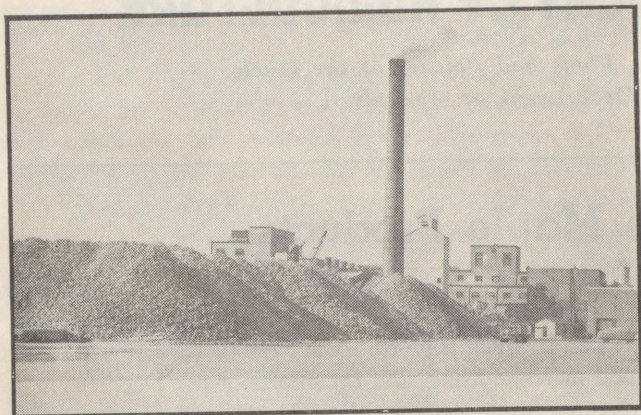
A few members of the Eastern Townships Sheep Breeders' Association came together for an annual meeting at Sherbrooke on April 22nd and agreed that sheep raising in the Townships needs a shot in the arm.

J. J. Gautreau from the Department of Agriculture was on hand to describe once again the Department's cross-bred policy, which has caught on well in the eastern part of the province, but which hasn't attracted much attention from the breeders in the Townships as yet. He pointed out that in the Rimouski area certain clubs had marketed 155 lambs raised in accordance with this programme; 122 of them, or 71%, had graded "A" on the rail, whereas of 2,458 lambs from other parts of the province, only 51% reached this grade.

The Rimouski breeders have gone ahead with the idea of working through co-operation between the sheep clubs. Mr. Gautreau called this policy of the Department's the most advanced sheep rearing programme in Canada, and pointed out that in the United Kingdom, about 90% of the lambs, and nearly all the New Zealand lambs, result from cross breeding such as the Department has been suggesting for the past few years. He emphasized that Quebec is willing and anxious to help in establishing this policy on a firm footing in the Eastern Townships, but the initiative will have to come from the breeders themselves.

Few French-Canadian sheep raisers come to the meetings of the Association, and there was agreement that the Association would be greatly strengthened if more of them could be interested in its activities. The executive (all of whom were re-elected) promised to look into this question.

Our Beet Sugar Industry



Beets, beets and more beets at St. Hilaire.

Ten years ago this fall the Quebec Sugar Refinery at St. Hilaire processed its first beets, and anyone who was working at the plant when it started operations on October 25, 1944, would have difficulty recognizing it if he went back today.

During the first five years of operations, the plant processed an average of 16,500 tons of beets each year. The average of the last five years has been 92,260 tons. A total of 540,000 tons of beets produced by the surrounding farms during these ten years has given a yield

of 144,009,700 pounds of sugar all of which has been sold in this province.

In addition, by-products of the sugar manufacture have amounted to 20,909 tons of molasses and 27,576 tons of dried beet pulp for cattle feeding.

In 1944, 54 farmers were growing beets for the factory, getting an average yield of 749 tons. In 1953 the average crop per farm was 2,785 tons, an increase of 371%. Beets are grown in 26 counties in Quebec, but the bulk of the production comes from 10. During the past ten years the total tonnage produced per county was

St. Hyacinthe	206,333 tons
Napierville	67,612
Bagot	58,107
Verchères	34,958
L'Assomption	24,337
Rouville	21,499
Montcalm	20,144
Laprairie	17,338
Berthier	14,838
Chambly	12,909

There has been a revolution in beet growing techniques during the past four years, touching all operations from seeding to harvesting. New machinery, new methods developed by the technicians of the Department of Agriculture, have made it possible to produce a ton of beets with four man-hours of labour, as against nine hours just a few years ago, a saving of almost 50%.

Beef Men's Sale Successful

The Quebec Beef Cattle Association's fourth spring sale was held at Sherbrooke on April 22nd and was voted the best yet. The Shorthorn and Angus offerings were all locally owned but the Herefords were augmented by imports from Ontario. However, it is hoped that for the 1955 sale it will not be necessary to bring in any cattle from outside to complete a good line-up.

Shorthorn quality, in so far as the females are concerned, was better than had ever been offered at the sale, and would have done credit to any sale of this kind. Bull quality, however, was disappointing. The Hereford and Angus entries were of good average quality, and all the animals brought prices which were satisfactory in light of the present market.

As usual, all the bulls sold carried a Provincial Government bonus, and some of the better ones were also eligible for an additional bonus of \$50. offered by the Association.

Top price of the sale was \$800, paid by Mrs. Dobell of Magog, for a Shorthorn female, Tutira Secret, consigned by Tutira Farm at Arundel. Mrs. Dobell, who has purchased the Howard Murray farm, is establishing a new herd and bought in three females at the sale.



Mrs. Dobell with one of her purchases—the top priced female at the sale.

Angus prices for females ran from a top of \$625 for Pride of North River consigned by G. R. McCall down to \$135; the two bulls sold for \$500 and \$300. Eric Webster paid \$575 for the top-priced Hereford female consigned by George Rodanz of Stouffville, and sold his Glen Villa Brook Bud to W. MacRae of Delson, P.Q. for the top bull price of \$380.



This is what the sale ring looked like before the rain.

Breed averages were as follows:

	Males	Females
Shorthorns (6 males, 15 females)	\$336.66	\$336.00
Herefords (4 males, 14 females)	342.50	314.64
Angus (3 males, 9 females)	336.66	322.22

The sales committee consisting of Wes Nichol as chairman with C. McClay, J. P. MacIntosh, Ross Edwards, Col. B. D. Lyon, J. E. C. Tanner, Ted Bennett and Agronome MacMillan gambled with the weather and lost. It looked like a safe gamble when the ring was set up outdoors, and the sale got off to a good start in brilliant sunshine and near-summer temperature. But a sudden storm blew up in the middle of the Hereford sale and everything had to move indoors in a hurry; there was a delay of over half an hour before things got underway again in the back part of the Arena building. Half the buyers were scurrying for shelter while the last two animals were being sold outdoors, which didn't make auctioneer Art Bennett's job any easier.

The Department of Agriculture was in the market for bulls, taking a Hereford and a Shorthorn; other buyers



Selecting the "bonus bulls" before the sale.

of more than one animal included Wes Nichol, Mrs. Dobell, G. Marsan, Mrs. T. C. Stuart, J. Routledge, and Morley Honey.

Interest in the production of top quality beef cattle in Quebec is definitely on the increase and the number of purebred breeders has increased by some 25% since 1951, largely as a result of these annual sales of breeding stock. We can confidently expect to see still more progress in the years to come. This was the general theme at the general meetings which the three breed associations arranged to hold in Sherbrooke while the breeders were there for the sale.

The June Set-Aside

The month of June will have a double-barrelled meaning to Canadian farmers this year. As a regular product promotion month, Dairy Farmers' of Canada publicity and advertising will focus consumer's attention on dairy foods related to summer meals. It will also mark the time of year when the dairy farmer contributes to the annual Set-Aside, the publicity and advertising fund used to finance the promotion of dairy foods.

As a promotion month, under the slogan "June is Dairy Month", June will see a tie-up on a national basis by the entire dairy industry. Dairy producers, processors, distributors, manufacturers, wholesalers, and retailers will team up in relating dairy foods to summer diets and menus. As the fourth promotion this year, "June is Dairy Month" has been preceded by intensive advertising and merchandising in February, March and April for concentrated milk products, butter and fluid milk respectively.

The Set-Aside phase of the month of June has been sparked by a message from President, Gilbert Macmillan, Huntingdon, Quebec, to the 455,000 Canadian dairy farmers, members of the national organization. He pointed up that the advertising and public relations program had something to do with the fact that Canadians in 1953 had increased their consumption of dairy foods. With a new record in contributions, based on a cent-a-pound of butterfat or milk equivalent produced in June, bringing the final 1953 Set-Aside figure to a new high of \$365,000, an endeavour will be made to boost the 1954 Set-Aside over the \$400,000 mark.

Export trade off in January mainly as a result of a 14.6 percent drop in exports to the United States. There were also small drops in purchase by the United Kingdom, other Commonwealth countries and foreign countries other than Latin America and Europe where increases were shown.

Falsifying Pedigrees Doesn't Pay

For the first time in Canada, and possibly in any country, results of a blood test to prove parentage of a farm animal has been presented and accepted by a court.

Gerald Rowe of Riceville, Ont., registered a heifer calf as the daughter of his Holstein cow Lady Bess Rena Echo by Penvale Supreme; on charges of falsifying the pedigrees of Holstein-Friesian cattle on his farm he was brought to court by the Department of Agriculture through the RCMP where it was shown to the satisfaction of the judge that the calf could not have been the daughter of these two animals.

Mr. Rowe was fined \$500 and costs, probably another \$500.

Emmet Collins, who is an experienced technician for an artificial insemination unit, testified that he had inseminated the cow, Lady Bess Rena Echo in Mr. Rowe's herd only four months before the calf registered as Mary Bess Supreme was claimed by Mr. Rowe to have been born; at that time the cow was not in calf. Mr. Collins produced record showing exact dates of insemination services, definite identification of the cow inseminated and of the bull used, to prove that the calf in this case could not have been born as the result of this mating.

The prosecution also proved, by blood tests, performed by experts, that the calf could not have been the daughter of these two parents. Evidence on this point was given by Dr. Humble of the Ontario Veterinary College. To prove parentage by a blood test, all the factors found in the blood of a calf must be present in the blood of either the sire or the dam. If certain factors

found in the blood of the calf could not be found in the blood of either the sire or the dam, then the calf could not have been the result of that particular mating. In the case of the heifer, Mary Bess Supreme, factors were found in her blood that were not present in either the blood of the alleged dam Lady Bess Rena Echo, or the alleged sire, Penvale Supreme. Consequently, Mary Bess Supreme could not have resulted from that mating.

Officials of the Department of Agriculture believe that acceptance of the blood test by the court as proof of parentage will help greatly in preventing future attempts to substitute one animal for another in the registration of livestock. With the widespread use of artificial insemination in the breeding of dairy cattle it will be comparatively easy to make and record blood tests of all sires used in breeding centres. The Canadian Holstein-Friesian Association already requires it for all Holstein bulls used in such centres, and the results are recorded at the Ontario Veterinary College.

With the blood types of the sires recorded, it will not be hard to have blood tests made of a calf and the calf's dam in any future cases of doubtful parentage. Comparison of the blood tests of all three animals will show without any doubt whether or not the calf in question is actually the result of the mating of that particular sire and dam. The fact that the blood test has been accepted as evidence by a court will make it difficult for any cattle breeder in future to substitute one animal for another, either by accident or by design, on a certificate of registration.

Honeybees Pollinate Red Clover...

Research work conducted at the Central Experimental Farm, Ottawa, during the last two years, has shown that honeybees are effective pollinators of red clover, says E. Braun, Senior Apiculturist.

Bumblebees are also important pollinators of red clover but their numbers vary during the season and from season to season, and their peak of population does not always coincide with the second crop of red clover, which is the one generally left for seed. On the other hand, honeybee populations can be controlled as required and from two to four colonies per acre should provide an adequate number of honeybee pollinators. These colonies should be moved into the fields being left for seed when the red clover flowers are from 10 to 15 per cent in bloom.

It was found at the Farm that honeybee colonies, placed at one end of the field, in both years, showed that the numbers of honeybee pollinators decreased as

the distance from the apiary increased, and that the seed yield was directly proportional to the numbers of pollinators present. Dispersal of the colonies around or in the field would appear to be advantageous, if the flight distance from the hives exceed one-half mile.

The attractiveness of any crop to insect pollinators is partially governed by the volume and concentration of the nectar in the flowers and its availability to insect visitors. Studies on red clover showed that both the volume and concentration of nectar varied from day to day, depending upon existing weather and growth conditions. The volume of nectar was relatively constant throughout the length and breadth of the fields at any given time but the concentration was always higher in the afternoon than in the morning. This probably accounts for the larger number of pollinators present in the fields during the afternoon.

What's Your Favorite?

Vanilla is Canada's favorite ice cream, it is preferred over all other flavors according to a survey just completed by the International Ice Cream Manufacturers. Altogether there are over 50 different flavors sold in Canada compared with 174 in the United States. Canadian favorites are vanilla 55 percent, strawberry 8 percent, chocolate 7 percent, maple nut 5 percent, butterscotch ripple 5 percent, chocolate ripple and cherry 3 percent, tutti-frutti 2 percent, all other flavors 12 percent. Twenty years ago vanilla accounted for 65 percent, strawberry 12 percent, maple 11 percent, chocolate 5 percent and others 7 percent.

In sherberts orange, pineapple, raspberry, lime and lemon are the favorite flavors in both the United States and Canada.

Canada's River of Milk

Canada's milk production in 1953 totalled 16½ billion pounds, exceeding the previous year by almost 700 million pounds or 4 percent. A further similar increase has been predicted for this year with dairy cow numbers up 6 percent over a year ago. In 1953 this vast river of milk used went into the following uses, butter 46 percent, fluid milk sales 30 percent, cheddar cheese 5 percent, evaporated and powdered milk 5 percent, ice cream 3 percent and used on farms 10 percent.

Report On Mechanization

Recent figures indicate that the post-war rebuilding of machinery inventories arising from wartime shortage of materials is almost complete in the Prairie Provinces but is still lagging to some extent in the rest of the Country. Although the number of horses on farms has been declining steadily since about 1930, the drop has been much accelerated since the war.

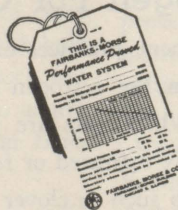
Evidence provided by trends in farm machinery sales show that this rebuilding and replacement process has taken place more rapidly in the

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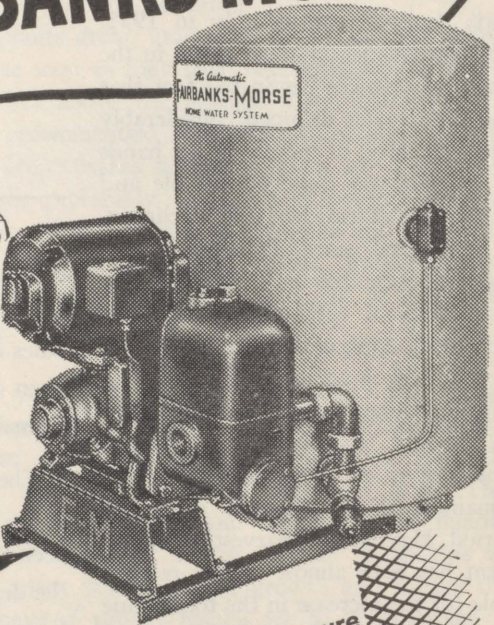


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Prairie Provinces than elsewhere in Canada. While the value of all equipment sold reached a peak in 1952, tractor sales were at a high point in 1949 and have declined steadily since. Most of the drop in total sales is accounted for in the Prairie Provinces while sales were almost as high in the remainder of Canada in 1951 as in 1949. Sales in the remainder of Canada dropped considerably in 1952. The significance of these shifts in the Prairie Provinces lies in the fact that machinery sales dropped considerably while the level of income in the hands of farmers was quite favourable and outstanding farm debt was declining.

In general since 1936, there has been considerable expansion in the proportion of total expenditures on harvesting equipment, both grain and hay, and on miscellaneous equipment with a decline in the proportion spent on seeding and tilling equipment. The proportion spent on tractors has remained about constant over this period. Haying and harvesting equipment has been almost wholly responsible for the increase in the total value

of machinery sales from \$217 million in 1949 to \$250 million in 1952. Sales of heavy tillage equipment have risen considerably but these represent a small proportion of the total.

There has also been a marked shift back to standard type tractors reflecting considerable improvement in the design of this type in recent years. For example, 1952 sales of standard tractors were about 93.5 per cent of 1949 sales, while the row-crop type dropped to 33.3 per cent of sales of the same type in 1949. In 1952 sales of the row-crop type were less than one-quarter of those of standard classification. There has been a large increase in the proportion of sales of tractors of the 3-4 plow and larger sizes between 1949 and 1952.

Nitrogen For Oats

Management practices exert a big influence on the nitrogen supply in the soil. Where oats are grown on land recently manured or following a legume crop such as clover or alfalfa the soil may contain enough nitrogen for the oat crop. In fact additional nitrogen may be harmful, since excessive amounts may produce a rank-growing heavy crop that will lodge.

On soils low to medium in fertility, however, oats will do much better if nitrogen is applied.

When seeding oats as a nurse crop in establishing a legume hay crop, less nitrogen should be applied than that used for oats seeded alone. Otherwise the heavier crop of oats resulting from the nitrogen application may by competition for light and moisture result in a poorer stand of legume.

Tests carried out some time ago by the Central Experimental Farms Service would seem to prove the foregoing. They found that an application of 12 to 15 pounds of nitrogen per acre resulted in increases in the yield of oats of up to 14.7 bushels per acre. The average increases from applied nitrogen in all tests was 5½ bushels per acre. For best results, however, it will usually be necessary to apply phosphorus and in some cases potash as well in addition to the nitrogen in the fertilizer.

University and college enrollment in the current academic year is estimated at 64,200 students, an increase over 1952-1953 and a reversal of the downward trend in evidence since the peak year of 1947-48.

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Successful Tomato Growing

by N. H. Beach

With the gardening season upon us some hints on tomato growing may be useful. Having been fairly successful in raising this fruit the writer has been asked to pass on cultural methods which have produced results, and which may be helpful to those who wish to adopt them.

Information given will apply to tomato growing in the town or country garden and to Eastern Townships climatic and soil conditions.

Type of Soil

Any type of soil seems suitable providing it is supplied with an abundance of plant food as tomatoes are heavy feeders. Rotted manure worked into the soil, sometime previous to planting, as well as an application of some good commercial fertilizer, at time of planting, is recommended.

Sturdy Plants

Only good, sturdy, well hardened-off plants should be used. By hardened-off plants, I mean those which have been kept at cool or outside temperatures for several days before being removed from hot-beds or flats where they have been grown. Choose a location in the garden where the plants will receive a maximum of sunlight throughout the day.

Planting

Planting should not take place before the 10th of June, and preferably about a week later. This avoids any danger of frost and also lessens the amount of damage which may be caused by the small flea beetle which attacks the young plants immediately after planting. Plants should be spaced in rows about 30" each way. When planting, dig a square hole (preferably with a spade) about 12" deep. Work a good hand-full of commercial fertilizer into the soil in the bottom of the hole and place the plant in it, making sure that as much soil as possible has been left adhering to its roots. To assure this, water the plants well before removing them from flats or hot-beds.

Do not fill in the hole until the plant has made sufficient growth above the surface to enable you to do so. The reason for this method of planting is that the plant is protected from cool winds, which may damage it, and which also may retard growth. It also allows for much deeper planting, which may be helpful later in supplying the plants with much needed moisture during dry periods.

Staking

As the plants grow, gradually fill in the earth around them and as soon as they have reached a height of eight or ten inches above the surface, they may be staked. Staking is recommended as it provides earlier and better developed fruit. Stakes should be about 1½" square and six feet tall, preferably of cedar; if painted they will last for years. Tie the plant to the stake and continue to do so as long as growth continues. Properly grown plants should reach a height of five feet or more when mature.

Pruning

As soon as vigorous growth starts, which will be from 10 to 15 days after planting, you will notice small suckers of complete plant-like growth appearing at the point where the leaves branch from the main stem. These should be removed at once and continue to be removed throughout the growing season. Failure to do this will result in a plant with far more growth and foliage than it should have if proper results are to be obtained. To make sure that all suckers are being removed when they should be, the plants should be suckered at least twice every week, while rapid growth is being made. Suckers around the base of the plant may also appear. These should also be removed.

Insect Control

It was previously mentioned that at planting time young plants could be damaged and destroyed by the small flea beetle which appears at that time. To prevent this, dusting the plants with a commercial tomato dust is recommended. Later applications are also helpful in controlling blight.

Moisture

The soil should be kept well cultivated at all times to prevent the loss of much needed moisture. Mulching the plants with early cut hay, clean straw or shavings, if cultivation is discontinued, has proved very successful in retaining moisture. If the weather becomes very dry the plants should be well watered at least twice every week. Failure to provide sufficient moisture will result in less and much smaller sized fruit.

Fertilizer

To be certain that the plants are receiving sufficient food for maximum development, a small amount of commercial fertilizer may be applied around each plant, once or twice during the season and worked into the soil during cultivation.

The Month With The W.I.

First reports from *two* new branches! Is that a record for one month? It certainly hasn't happened before during the tenure of the present office staff. A warm welcome from this column to them both—Granby West and Mata-pédia.

Who is coming to the Leadership Training Course? That was discussed by many branches. The event itself will be over when you read this but we hope at time of writing this interest will bring the usual happy result—a maximum attendance of alert and fully participating members.

Bonaventure: *Black Cape* enrolled its 38th member. Hints were given for making meals more appetizing at this meeting when the grandmothers, and one great-grandmother, were the honoured guests. A donation of \$5 was received from Mrs. E. McLellan, Caplin. A "Kangaroo" word contest was held, Mrs. J. Taylor the winner. *Grand Cascapédia* sent a parcel to an unfortunate family. The program featured a scrambled word contest. *Marcil* heard a talk on "The Compost Heap", given by the convenor of Agriculture, and the report of the Radio Listening Group was prepared. The 1953 School Fair portfolio was on display. *Matapédia* was organized by the county president, Mrs. John Campbell. Mrs. Reg. MacCallum is the president and a full slate of officers and convenors has been appointed. *New Richmond* had a demonstration of different types of bandages with directions as to their use. A travelling apron netted \$30 for branch funds. *Port Daniel* members named their favorite time savers. Prizes for the best wall pockets went to two new members; Mrs. F. Prince and Mrs. W. Gillies. An essay contest was arranged for pupils in Grades VII and VIII in the R.C. School. Mrs. Ray Nicol, president of *Restigouche W.I.*, prepared the feature article for the monthly broadcast.

At *Shigawake* recipes for supper dishes were exchanged and the convenor of Home Economics gave suggestions on ways to use eggs. *Port Daniel-Shigawake* JWI held its annual meeting at the home of the *Marcil* president, Mrs. John Walker. Reports showed that good work had been done. Two members earned gardening badges and five knitting badges, while all had made Coronation scrapbooks. Reports were sent to the county Publicity convenor for the monthly broadcasts.



Taken after a course in glove and slipper making at Austin by Miss Hasel, who is at front.



Grandmother's Day at *Black Cape's* Institute meeting, with the honoured guests appearing in costumes appropriate to the occasion. Left to right:—Mrs. H. Young, Mrs. C. Fair-service, Mrs. A. Ward, Mrs. N. Campbell, Mrs. S. Thorburn, Mrs. Reuben Powell, Mrs. H. M. Henderson, Mrs. Geo. Fairservice—the last named winning the prize for the best costume.

Brome: *Abercorn* heard a talk on "House Plants" by Mrs. Gibney and seeds and slips were exchanged. A donation of \$5 was given the Red Cross. *Knowlton's Landing* received over \$25 "talent money" from members and donated \$5 towards treats for local children. *South Bolton* plans to enter the Tweedsmuir Handicraft Competition. Two pairs of hand-knitted socks were brought in for the County Exhibit and \$10 was realized from a sugar social. *Sutton* had an auction of articles donated by members and gave \$5 to the Red Cross.

Chat-Huntingdon: *Aubrey-Riverfield* members signed a birthday card to be sent to Mrs. Archie Craig, who celebrated her 100th birthday on May 1st. A paper entitled, "Be Proud to be a Farmer", was given by Mrs. A. Bennie and Mrs. E. Orr read a poem, "My Mother". *Dundee* had a talk and discussion by Mr. and Mrs. Louis Plante of that locality on their Chinchilla Farm, with a live animal for demonstration purposes. Mrs. L. D. Fraser won the household prize and \$5 was given the School Public Speaking Contest. *Franklin Centre* had an address by Mr. Eric King, principal Ormstown High School, on "Shakespeare and two of his Plays". The sum of \$28.50 was realized from a Variety Show by the Ormstown Presbyterian Y.P.S. *Hemmingford* held a special public speaking contest for Grades II and III in the school and a Painting Class has started, which includes many of the students. Plans were made for an auxiliary to aid Barrie

Memorial Hospital. Sewing and woodwork are to be added to the School Fair. *Howick* had a book review, "The Life and Work of Dr. Albert Schweitzer" by Mrs. Wm. Hamilton. Donations were voted of \$6 to the High School Public Speaking Contest and \$12 for prizes in the School Spring Fashion Show and Woodwork Display. A subscription was sent for UN News and a demonstration given on kitchen gadgets. A singsong, led by Rev. Mr. Brown and Mrs. E Smith closed the meeting. *Huntingdon* decided to send a copy of their W.I. cookbook to Mrs. W. H. Stephens, Ottawa, founder of Huntingdon branch. Two presentations were made, a cup and saucer to Mrs. Reid, past-president, and perfume to Mrs. Crutchfield, treasurer, who is leaving the community. Miss Heikinen, Domestic Science teacher, gave a demonstration on table setting and gave the history of china and cutlery, also demonstrated a bride's table. Members are assisting with blood donor clinic and a committee was formed to arrange for the School Fair—127 children have applied for seeds.

Compton: *Brookbury* had Mr. McMillan as guest speaker, who gave a talk on soils and gardening. *Bury* JWI enrolled two new members. Many are finishing their knitting and crocheting projects and the scrapbooks are being brought up to date. A food sale netted \$20.98. *Bury* had a film showing. A W.I. pin was presented a member leaving town, a cup and saucer to a guest, and a donation made to the Cancer Society. *Cookshire* had Mr. MacMillan as speaker, who gave a talk on "The Agricultural Situation in Canada". Mrs. Learned read an article on "The Need of Industry in Nova Scotia". A loan of \$70 was given to a high school pupil who is going to train for a nurse. A bridge and 500 marathon brought \$94 for branch funds and donations include \$10 for the garden plot, \$25 for School Fair prizes, \$5 towards plates for the High School and cotton sent the Cancer Fund. *Canterbury* sent a box of clothing to



Off to the county meeting, six members of Marcell W.I.

Toronto for overseas relief. Several articles on the life of the late Queen Mary were read and consumer leaflets ordered, also the "Federated News". *East Clifton* heard a paper entitled, "Let's Fight", (Health). A guessing contest on the number of inches given W.I. publicity in the *Sherbrooke Record* was featured. *East Angus* presented a gift to a member for perfect attendance. Cotton was sent to the Cancer Society. *South Newport* made a donation to the Red Cross. *Scotstown* held a party for the marathon play-off and members helped to canvas for the Red Cross. The Gift Shop held a sale. *Scotstown* JWI gave a broadcast on Citizenship. The group is having a course under the direction of Mr. Bruck, representative of St. John Ambulance Corp.

Gaspé: *L'Anse-Aux-Cousins'* sing, say, or pay a dime, proved to be highly amusing. Five new members were enrolled and delegates appointed to county meeting and Leadership Training Course, Mrs. V. Dumeresque and Mrs. Rex Coffin, respectively. *Sandy Beach* entertained the county president. Mrs. Allan Eden. Two new members were enrolled. A patch work pot-holder contest was held, the holders being sold for branch funds, and a children's afternoon planned. *Wakeham* is holding a series of card parties, the proceeds most gratifying. A large box of food was sent to a friend, \$10 donated the Cancer Society and \$5 the March of Dimes. A parade of old-fashioned costumes was amusing.

Gatineau: *Aylmer East* had a busy annual meeting. *Breckenridge* collected \$49.60 for Can. Institute of Blind and a grant of \$25 from Mr. G. Desjardins, M.L.A. was received for the School Fair project. This meeting was the 40th anniversary of the founding of the branch. *Lower Eardley* featured Agriculture night. A member gave a paper on "The Growing of Gladioli" and another on "Field and Orchard". The convenor of Education spoke on the topic, "Value of Home and School Asso-



Two honorary members of South Newport Branch, Mrs. Austin and Mrs. Horace Cairns.

ciations". A box of clothing was collected for a needy family. *Rupert* appointed convenors for the weekly dances and voted \$10 to the Red Cross. *Wakefield* had a discussion on old superstitions. Members collected for the Red Cross and \$10 was voted to the Drive. Sewing and mending were distributed for a Children's Home in the district and 17 bed lamps purchased for the County Hospital. Mrs. D. Geggie, W.I. representative to local school board, gave some details of plan to provide a scholarship for *Wakefield* graduates who wish to further their education. *Wright* received a letter from a pen friend in a Scottish W.I. telling of the work there. Donations were sent to the Red Cross and the branch is sponsoring the local Drive.

Jacques Cartier: *Ste. Annes* held a busy annual meeting, with reports from all the convenors.

Mégantic: *Inverness* is having a sale of home cooking at each meeting. Stockings for Korean children have been knit and the date for course in leather work has been arranged.

Missisquoi: *Fordyce* discussed equipment for the county hospital, a wheel chair being the popular suggestion. Mrs. J. Bowling read articles on "How to Grow Grapes", "Canadian Farmers have gone Convention Crazy" and "How to stay Thin". Mrs. Moore brought excerpts from the Village History being compiled for the Tweedsmuir Competition. *Stanbridge East* had as guest speaker, Miss Hazel O'Dell, county president. Mrs. Faulks, an English W.I. member was present. A report of the Memorial Hall Co. was read. Mrs. C. M. Blinn, Home Economics, read an article entitled, "Do You Know A Good Egg".

Pontiac: *Bristol* discussed fair exhibits for 1954. Mrs. E. Findlay reported on a meeting held with the Farm Forums at which Miss R. Ridley, Macdonald College, was the speaker. *Clarendon* reports a busy year. A finished quilt was on display, an order from a lady in Sudbury, and a sale of articles netted \$9.50. Donations were \$25 to School Board to assist in purchase of dishes, \$10 to Red Cross, \$10 to Orange Children's Home, Montreal and \$20 local cemetery funds. *Fort Coulonge*, a busy annual meeting showed an active year. A donation was made to the Polio Fund. *Quyon* has completed a rug and slipper course. Mr. J. L. McKeen, County Supervisor of Protestant Schools, was guest speaker. *Shawville* gave

\$75 to the cemetery fund, \$10 to Save the Children and \$5 to the Anti-T.B. Association. At *Wyman*, Mrs. H. A. Kelly, Convenor of Agriculture, read a poem, "The Sorry Tale of a Farmer's Wife". Mrs. Wm. Marks, Education convenor, gave some rules for mental arithmetic and an Irish quiz was conducted by Miss Edey. The sum of \$5 was voted the Red Cross.

Québec: *Valcartier* heard a talk, "Care of the Lawn", given by Mrs. John Hick, Agriculture. A barn dance was held at *Valcartier* Lodge and a new School Fair committee appointed. A monthly donation of \$6 is to be given a needy family.

Richmond: *Cleveland* had a demonstration on making paper flowers. Two members have had perfect attendance for over four years. The sum of \$5 was voted for books in the lower grades at St. Francis High School and \$10 to the Red Cross. *Denison's Mills* sent a gift to the honorary president, Mrs. T. Demers, on the occasion of her 92nd birthday. A talk on "Lawns" was given by the Agriculture convenor. *Gore* enjoyed pictures and a talk on Switzerland, her home country, by Mrs. Vogelsanger. A button hole contest was held and four pins given to members for perfect attendance. Pamphlets on "Nylon" and "Milk Powder" were distributed by the Home Economics convenor. *Shipton* presented life membership to Mrs. John Vermeeren. The branch is sponsoring teen-age dances and voted \$5 to the Red Cross. *Spooner Pond* had a sale of remnants, paper towels and garden seeds. There was a quiz on old sayings and superstitions. *Wind-sor Mills* had Mrs. A. E. Abercrombie as guest speaker on the subject "Institute Work". A meeting of the Girl Guides was attended by W.I. members. Seeds have been ordered for the School Fair.

Shefford: *Granby Hill* heard a talk on "Printing" given by Mr. Simms of Granby, and Mrs. Fred Neil read a poem. *Granby West* had discussions on "Gardening" and "Hot Beds". The branch plans to obtain canes for the blind and old cotton is being collected for the Cancer Society.

Sherbrooke: *Ascot* ordered tuberous begonias for a contest to be held in August. A gift was presented to the retiring president, Mrs. Parsons, and Mrs. B. Hyatt led in the singing of Irish songs. Four members made dressings at Sherbrooke Branch of Cancer Society. Two donations reported, \$10 to the Red Cross and \$5 to the March of Dimes. *Belvidere* had the county president, Miss V. Hatch, as guest speaker, who conducted the Installation service. A card party was reported and donations of \$25 to Q.W.I. Service Fund, \$10 to Red Cross, \$10 to Cancer Society and the share of county projects; European adoptee and Nurses' Bursary. *Brompton* sent 10 subscriptions to Federated News and one to CAC. A veteran was remembered. *Cherry River* had discussions on articles in the Journal. The tea hour was enlivened by teacup reading. *Lennoxville* entertained the



Bonaventure holds its County Annual.

staff of the High School and plans are being made for entries in the Tweedsmuir Competition. Donations were made to the county project mentioned above. Milby members are helping to make Cancer dressings at the Sherbrooke branch. Here again donations were made to the two county projects. Orford listened to the record made by the president, Mrs. W. Coupland, for the monthly broadcast, "Citizenship in the Community", her subject.

Stanstead: Ayer's Cliff held a benefit party to help a child in the McKay Institute and a basket of food was collected for a needy family. The CAC membership has been renewed. The Agriculture convenor read "Garden Facts and Fancies" and gave two humorous selections, "Women's Garden Clubs" and "The Gardener's Prayer". Beebe formed a committee for compiling a Village History. Each member brought a supper menu and the recipe for the main dish, these to be judged at the next meeting. Shut-ins have been remembered. Hatley held a cookie contest, using a recipe from the Q.W.I. cookbook. Stanstead North is planning to compile a Village History. Two films were shown, "Flax Growing in Quebec" and "A Visit to Montreal Botanical Gardens". A donation of \$10 to the Red Cross is noted.

Vaudreuil: Cavagnal presented a life membership to Mrs. Gray-Wheeler, the retiring president, Mrs. E. O. Riddell, making the presentation. A gift was also given another member, Mrs. Scanlon, who is now residing in Montreal.

Odds and Ends

Correction—Captions were "switched" in some mysterious way with two pictures in the March Journal. Page 24 is the Restigouche W.I. and a group at Lennoxville on page 25. Sorry.

Members entering paintings in the Tweedsmuir Competition please note that a new ruling as to size has been made. The painting can now be done on 14" x 18" canvas as well as the 14" x 16" size first stipulated. The National Committee has made that decision in response to a plea from some provinces that they were having difficulty in obtaining the right size.

Two "outside" meetings have been visited this past month. Perhaps we should say three, as the first was the annual meetings of both Provincial and National Canadian Handicrafts Guild. These were held the same evening at the building on Peel St., Montreal. There was an especially fitting setting for them as an exhibit of crafts of New Canadians was all around the room, beautiful and colourful. The spirit of the evening was further intensified when the national meeting closed (this was held last) with several numbers by an Ukrainian choir of mixed voices, dressed in national costume. Wonderfully trained, and unaccompanied, with most of the numbers

being folks songs in their own language, it was a thrilling experience. Truly we all felt in the words of the past president, Miss Lighthall, who arranged the program, that "You have much to offer us".

A plea for a tolerant and understanding public when boys are discharged from the Federal Training Centre was made by Mr. J. B. Martineau, Director, at the meeting of the Montreal Council of Women. His family, as he termed it, consists of 316 boys, ages ranging from 14 to 25, who have been sentenced to a federal penitentiary. Men are put in St. Vincent de Paul but this Centre has its own buildings and personnel. Mr. Martineau's task, as he sees it, is to take the place of the negligent parents, who are responsible for 90% of "his boys" being there. "Criminals", he explained, "represent the failure of our homes, our schools, our churches, and our society". Thanks to the treatment and training given in this Centre the number of repeaters has decreased in the past few years and is now down to only 11%, surely striking proof many had indeed been put "on the right track" to quote his own words. Speaking of the importance of rehabilitation when these boys are discharged, Mr. Martineau made a plea that those listening to him do all they could to see some one employs them, and gives them the understanding they need to become useful citizens.

(continued from page 18)

Massey Commission on Arts, Letters and Sciences, and to the Tremblay Commission on Constitutional Problems.

One thousand and eighty-eight members have been sworn in since 1942, and the majority of them retain close contact with the Corporation to build up a spirit of solidarity and brotherhood. The Corporation is proud of the record it has made and of its leadership in service to professional agriculture. It extends a hearty welcome to the Institutes of Agrolgists of British Columbia, Alberta, Saskatchewan, Manitoba and Nova Scotia, and to members of the Agricultural Institute of Canada in general.

Income From Dairy Products Up

Income from the sale of dairy products at 413.1 million dollars was approximately 4 percent above that of 1952 in 1953. Lower prices were more than offset by increased production occasioned by a continued rise in milk cow numbers during 1953.

For the second successive year total exports of Canadian oats, barley, rye and flaxseed moved in record volume during the first half of the current crop year. The 113.1 million bushels of the four grains exported during the August-January period of 1953-54 exceed by some 8 percent the comparable 1952-53 total of 104.4 million bushels.



THE COLLEGE PAGE

The Macdonald Clam

Notes and News of Staff Members and Former Students

Mac Man Goes Overseas



Keith Bradley, B.Sc. (Agr.) '49, has been picked as one member of a three-man team to go to West Germany to check on the system of selection and migration of farm labourers from Western Europe. The other two are R. A. Stewart of Almonte, a former president of the Ontario Federation of Agriculture, and Roy Marler, president of the

Alberta Federation of Agriculture. Mr. Bradley is vice-president of the Quebec Farm Forum Association.

The project was conceived by the Canadian Department of Immigration and the Canadian Federation of Agriculture is co-operating. Considerable discussion has taken place lately over difficulties experienced with immigrants who have come to Canada for farm work; many of them find work in industry and do not complete their engagement to stay on the farms for a specified length of time. Complaints rose to such a volume that it was decided to send this team overseas to see if improvements could be made in the methods of selecting these immigrants.

The team left Canada early in April and visited various centres in West Germany, working with officials of the Canadian Immigration Department overseas, observing the methods used in selecting immigrants for farm labour and studying the sources from which they are drawn. We hope to have a full report of their findings in due course.

Prof. Common, Chairman of the Chemistry Department, has been awarded one of the first of the series of Royal Society and Nuffield Foundation Commonwealth Bursaries, and will spend the months of July and August in England. He will study the endocrinology of the fowl at the National Institute for Research in Dairying at Shinfield, near Reading, one of the most important centres for research on poultry nutrition and physiology in the United Kingdom.

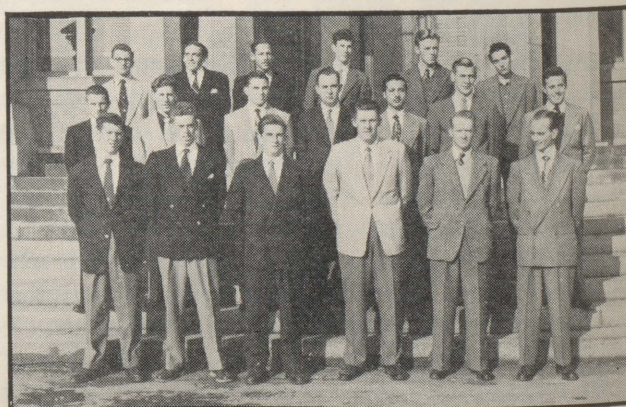
These Are The Graduates Of 1954



Household Science



Agriculture



Diploma

FORANO

L I M I T E D

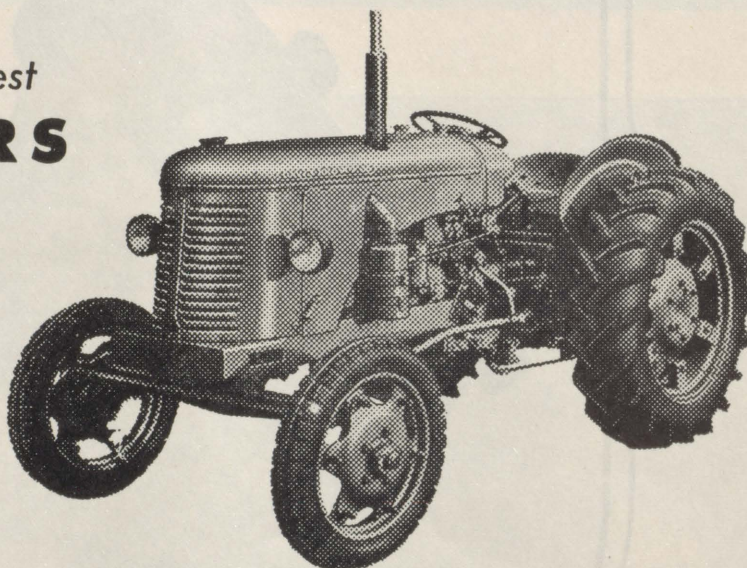
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